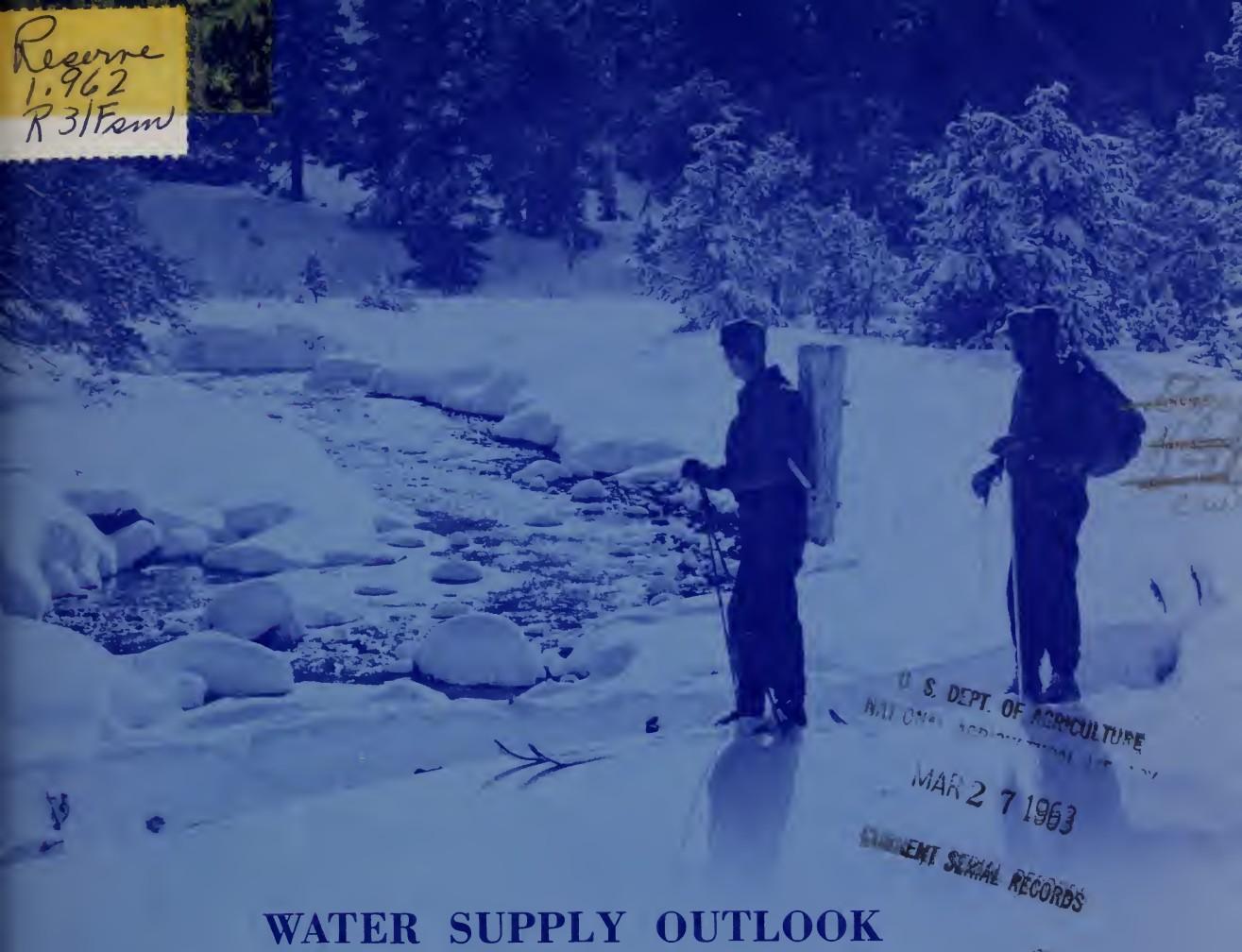


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U.S. DEPT. OF AGRICULTURE
NATIONAL SOIL SURVEY
MAR 27 1963
ENT SERIAL RECORDS

WATER SUPPLY OUTLOOK and FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS for COLORADO and NEW MEXICO

UNITED STATES DEPARTMENT of AGRICULTURE--SOIL CONSERVATION SERVICE
and
COLORADO AGRICULTURAL EXPERIMENT STATION,
STATE ENGINEER of COLORADO
and STATE ENGINEER of NEW MEXICO

Data included in this report were obtained by the agencies
named above in cooperation with the Bureau of Reclamation,
U.S. Forest Service, National Park Service and other Federal,
State, and private organizations.

**SPECIAL MEASUREMENTS
1962**

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Cooperative Snow Survey and Water Supply Forecast Reports:

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Fortunately, most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from fore-knowledge of the runoff.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, about 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1400 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

By relating snow survey measurements taken over a period of years to spring-summer runoff during the same period, relationships have been developed which make it possible to forecast seasonal runoff several months in advance of occurrence. In order to make a forecast, once a forecast relationship has been developed, the maximum snow water content at previously selected key snow courses is usually entered in the forecast relationship. More accurate forecasts are often obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast relationships.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, streamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions.

PUBLISHED BY SOIL CONSERVATION SERVICE

REPORTS	ISSUED	LOCATION	COOPERATING WITH
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RIVER BASINS

COLORADO AND STATE OF UTAH	MONTHLY (JAN.-JUNE)	SALT LAKE CITY, UTAH	UTAH STATE ENGINEER AND OTHER AGENCIES
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COLUMBIA	MONTHLY (JAN.-MAY)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
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UPPER MISSOURI AND STATE	MONTHLY (FEB.-JUNE)	BOZEMAN, MONTANA	MONT. AGR. EXP. STATION
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WEST-WIDE	OCT. 1, APR. 1, MAY 1	PORTLAND, OREGON	ALL COOPERATORS
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STATES

ALASKA	MONTHLY (MAR.-MAY)	PALMER, ALASKA	ALASKA S.C.D.
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ARIZONA	SEMI-MONTHLY (JAN. 15 - APR. 1)	PHOENIX, ARIZONA	SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION
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COLORADO AND NEW MEXICO	MONTHLY (FEB.-MAY)	FORT COLLINS, COLORADO	COLO. AGR. EXP. STATION COLO. STATE ENGINEER N. MEX. STATE ENGINEER
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IDAHO	MONTHLY (FEB.-MAY)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
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NEVADA	MONTHLY (JAN.-MAY)	RENO, NEVADA	NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES - DIVISION OF WATER RESOURCES
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OREGON	MONTHLY (JAN.-JUNE)	PORTLAND, OREGON	ORE. AGR. EXP. STATION OREGON STATE ENGINEER
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WASHINGTON	MONTHLY (FEB.-JUNE)	SPOKANE, WASHINGTON	WN. STATE DEPT. OF CONSERVATION
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WYOMING	MONTHLY (FEB.-JUNE)	CASPER, WYOMING	WYOMING STATE ENGINEER
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Copies of these various reports may be secured from:

Head, Water Supply Forecasting Section
Soil Conservation Service
P.O. Box 4170, Portland 8, Oregon

PUBLISHED BY OTHER AGENCIES

REPORTS	ISSUED	AGENCY
---------	--------	--------

BRITISH COLUMBIA	MONTHLY (FEB.-JUNE)	COMPTROLLER, WATER RIGHTS BR., DEPT. OF LANDS AND FORESTS, PARLIAMENT BLDG., VICTORIA, B.C., CANADA
------------------	---------------------	---

CALIFORNIA	MONTHLY (FEB.-MAY)	CALIF. DEPT. OF WATER RESOURCES, SACRAMENTO, CALIF.
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UNITED STATES DEPARTMENT OF AGRICULTURE
 Soil Conservation Service
 Colorado State University
 Fort Collins, Colorado
 as of
 January 1, 1962

EARLY SEASON SNOW REPORT
 FOR COLORADO

Name of Snow Course	Current Information			Water Content		Inches	
	Date of Survey	Snow Depth	Water Content	Adjusted Average	1/1/62 % of 1943-57	Last Year	February Average
		Inches	Inches		Average		
Columbine Lodge	12/27	42	9.9	8.5	116	7.6	15.3
Two Mile	12/30	46	12.3	6.7	184	6.3	7.8
Berthoud Summit	12/28	35	9.3	8.2	113	6.7	12.0
Fremont Pass	12/28	44	8.2	5.9	139	4.7	10.3
Vail Pass	12/29	44	7.7	5.0	154	4.5	11.1
Porphyry Creek	12/29	33	7.2	7.1	101	9.1	10.0
Red Mountain	12/29	54	15.8	--	--	11.3	14.9
Wolf Creek Summit	12/27	60	16.7	11.9	140	7.8	17.6
Wolf Creek Pass	12/27	56	15.3	10.3	149	7.3	19.5
Upper San Juan	12/27	59	15.7	11.1	141	7.3	21.8
Spud Mountain	12/29	39	11.6	10.9	106	6.9	16.9
Mesa Lakes	12/29	28	6.9	--	--	NS	10.2
Tennessee Pass	12/29	25	4.4	3.8	116	NS	6.9

NS - No Survey

Courses with no averages shown have less than 5 years of prior records.

Snowfall throughout the State is above average. Some areas just above while some areas are indicating 150% more snow than usual on January 1st. This is very early to be predicting what the rest of the year will produce, but we have a good start.

Reservoir carry-over storage is above normal in most areas.

Above normal fall and late summer precipitation left the mountain soil moisture in very good condition. Many stations reported the maximum of record.

WATER SUPPLY OUTLOOK

Federal State Private Cooperative Snow Surveys
 Special Snow Report
 for
 Colorado and Wyoming

Soil Conservation Service
 Snow Survey Section
 Colorado State University
 Fort Collins, Colorado

June 1, 1962

Report Prepared by ..
 Jack N. Washichek
 Donald W. McAndrew
 Soil Conservation Service

Snow Course	Date	Snow Depth Inches	Snow Water Content in Inches				
			6/1/62	1950-61 6/1/62 6/1/61	1943-57 6/1 Avg. 5/1/62 5/1 Avg.		
<u>Colorado</u>							
Cameron Pass	5/29	58	27.3	26.8	20.2	36.5	25.6
Willow Creek Pass	5/29	3	1.0	0.8	2.8	14.3	11.5
Park View	5/29	0	0.0	0	0.1	9.1	6.5
Columbine Lodge	5/29	6	2.4	0	4.6	23.2	21.3
Berthoud Summit	5/28	32	13.2	12.7	17.4*	21.1	20.2
Red Mountain	5/31	49	21.7	10.8	-- *	35.3	25.6
Fremont Pass	5/28	38	15.7	6.1	9.8*	21.2	18.6
Tennessee Pass	5/28	0	0.0	0	--	9.3	6.8
Vail Pass	5/28	14	3.7	0	4.6*	16.5	16.8
Porphyry Creek	5/29	12	3.5	5.0	10.4*	19.9	16.7
Mesa Lakes	5/31	0	0.0	0	--	15.0	14.4
Wolf Creek Pass	5/29	4	2.3	0	6.3*	28.0	25.4
Wolf Creek Summit	5/29	69	33.2	13.5	23.9*	37.1	30.5
Spud Mountain	5/31	27	12.0	6.2	14.2	26.2	21.2
Upper San Juan	5/29	15	6.7	0.9	--	35.5	30.3
Two Mile	5/31	46	20.5	NS	--	22.9	17.2
University Camp	5/31	20	9.4	11.7	--	16.3	25.1
<u>Wyoming</u>							
Bottle Creek	5/31	0	0.0	0	0.2	9.7	10.7
Webber Springs	5/31	0	0.0	T	3.4	15.2	16.1
Old Battle	5/31	34	17.5	10.4	20.5	29.4	34.1
No. French Creek	6/1	52	26.7	13.3	24.4	36.3	32.4
No. Barrett Creek	5/31	0	0.0	T	9.8	NR	19.4
Ryan Park	5/31	0	0.0	0	--	6.2	7.4

* Less than 10 years of record.

T - Trace

All except the extremely high elevation snow pack has melted. The snow pack at the high elevation is still well above normal.

Streams throughout the State are running about as forecasted May 1st.

SOPHIA L. BROWN

LIST OF COOPERATORS

The following organizations cooperate in snow surveys for the Colorado, Platte, Arkansas and Rio Grande watersheds. Many other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

STATE

Colorado State Engineer
New Mexico State Engineer
Nebraska State Engineer
Colorado Experiment Station
Rocky Mountain Forest and Range Experiment Station

FEDERAL

Department of Agriculture

Forest Service
Soil Conservation Service

Department of Interior

Bureau of Reclamation
Geological Survey
National Park Service
Indian Service

Department of Commerce

Weather Bureau

War Department

Army Engineer Corps

Atomic Energy Commission

PUBLIC UTILITIES

Colorado Public Service Company
Western Colorado Power Company
Public Service Company of New Mexico

MUNICIPALITIES

City of Denver
City of Boulder

WATER USERS ORGANIZATIONS

Arkansas Valley Ditch Association
Colorado River Water Conservation District

IRRIGATION PROJECTS

Farmers Reservoir and Irrigation Company
San Luis Valley Irrigation District
Santa Maria Reservoir Company
Costilla Land Company
Uncompahgre Valley Water Users' Association
Twin Lakes Reservoir and Canal Company

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
240 SOUTH HALL
COLORADO STATE UNIVERSITY
FORT COLLINS, COLORADO

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FEDERAL - STATE - PRIVATE
COOPERATIVE SNOW SURVEYS

Furnishes the basic data
necessary for forecasting
water supply for irrigation,
domestic and municipal water
supply, hydro-electric power
generation, navigation,
mining and industry

*"The Conservation of Water begins
with the Snow Survey"*



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WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
COLORADO and NEW MEXICO

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE
and
COLORADO AGRICULTURAL EXPERIMENT STATION,
STATE ENGINEER of COLORADO
and STATE ENGINEER of NEW MEXICO

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AS OF
FEB. 1, 1962

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PUBLISHED BY SOIL CONSERVATION SERVICE

REPORTS

ISSUED

LOCATION

COOPERATING WITH

RIVER BASINS

COLORADO AND STATE OF UTAH — MONTHLY (JAN.-JUNE) — SALT LAKE CITY, UTAH — UTAH STATE ENGINEER AND OTHER AGENCIES

COLUMBIA —————— MONTHLY (JAN.-MAY) — BOISE, IDAHO —————— IDAHO STATE RECLAMATION ENGINEER

UPPER MISSOURI AND STATE —————— MONTHLY (FEB.-JUNE) — BOZEMAN, MONTANA —————— MONT. AGR. EXP. STATION OF MONTANA

WEST-WIDE —————— OCT. 1, APR. 1, MAY 1 — PORTLAND, OREGON —————— ALL COOPERATORS

STATES

ALASKA —————— MONTHLY (MAR.-MAY) — PALMER, ALASKA —————— ALASKA S.C.D.

ARIZONA —————— SEMI-MONTHLY —————— PHOENIX, ARIZONA —————— SALT R. VALLEY WATER USERS ASSOC. (JAN. 15 - APR. 1) ARIZ. AGR. EXP. STATION

COLORADO AND NEW MEXICO —————— MONTHLY (FEB.-MAY) — FORT COLLINS, COLORADO —————— COLO. AGR. EXP. STATION
COLO. STATE ENGINEER
N. MEX. STATE ENGINEER

IDAHO —————— MONTHLY (FEB.-MAY) — BOISE, IDAHO —————— IDAHO STATE RECLAMATION ENGINEER

NEVADA —————— MONTHLY (JAN.-MAY) — RENO, NEVADA —————— NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES — DIVISION OF WATER RESOURCES

OREGON —————— MONTHLY (JAN.-JUNE) — PORTLAND, OREGON —————— ORE. AGR. EXP. STATION
OREGON STATE ENGINEER

WASHINGTON —————— MONTHLY (FEB.-JUNE) — SPOKANE, WASHINGTON —————— WN. STATE DEPT. OF CONSERVATION

WYOMING —————— MONTHLY (FEB.-JUNE) — CASPER, WYOMING —————— WYOMING STATE ENGINEER

Copies of these various reports may be secured from:

Head, Water Supply Forecasting Section
Soil Conservation Service
P.O. Box 4170, Portland 8, Oregon

PUBLISHED BY OTHER AGENCIES

REPORTS

ISSUED

AGENCY

BRITISH COLUMBIA —————— MONTHLY (FEB.-JUNE) —————— COMPTROLLER, WATER RIGHTS BR., DEPT. OF LANDS AND FORESTS, PARLIAMENT BLDG., VICTORIA, B.C., CANADA

CALIFORNIA —————— MONTHLY (FEB.-MAY) —————— CALIF. DEPT. OF WATER RESOURCES, SACRAMENTO, CALIF.

FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND WATER SUPPLY FORECASTS
for
COLORADO RIVER, PLATTE RIVER
ARKANSAS RIVER AND RIO GRANDE
DRAINAGE BASINS

Issued

February 1, 1962

Report Prepared By
Jack N. Washichek, Snow Survey Supervisor
and
Don W. McAndrew, Assistant Snow Survey Supervisor
Fort Collins, Colorado

United States Department of Agriculture
Soil Conservation Service
and
Colorado Agricultural Experiment Station
Fort Collins, Colorado
and
State Engineer of Colorado
Denver, Colorado
and
State Engineer of New Mexico
Santa Fe, New Mexico

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State Engineer
State of Colorado

Sherman S. Wheeler, Director
Colorado Agricultural
Experiment Station

S. E. Reynolds
State Engineer
State of New Mexico

General Series Paper No. 765
Colorado Agricultural Experiment Station



WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO
as of
FEBRUARY 1, 1962

WATER SUPPLY OUTLOOK AS OF FEBRUARY 1, 1962 IS MUCH IMPROVED OVER A YEAR AGO. SNOW COVER IN ALL MOUNTAIN AREAS OF COLORADO AND NEW MEXICO IS ABOVE NORMAL. THE COLORADO RIVER, GUNNISON, AND NORTH PLATTE BASINS ARE APPROACHING 150% OF NORMAL SNOWPACK. THE SAN JUAN AND DOLORES DRAINAGES IN SOUTHWESTERN COLORADO AND NORTHWESTERN NEW MEXICO HAVE THE POOREST SNOW COVER. THE SNOW HERE IS ONLY ABOUT 105% OF NORMAL.

COLORADO

Colorado snowpack is the best since 1957 in most areas. Snowpack is fairly consistent throughout the State and is about 135% of normal, with the exception of the Southwestern corner which is just above normal.

Soil moisture is another bright spot. All stations indicate that soils are wetter than normal and in far better condition than last year.

RESERVOIR STORAGE

Carry-over storage without exception is better than last year. Some individual reservoirs may be slightly less than last year, but the basins as a whole are in better shape.

The South Platte is especially in good conditions, where many reservoirs are full or expected to fill before next irrigation season.

NEW MEXICO

Snow cover is above normal on all drainages in New Mexico. Considerable more snow is needed, however, to alleviate the water shortage that has existed in this area for several years.

Soil moisture is reported as good throughout the entire length of the Rio Grande. Mountain soils are also much above normal.

RESERVOIR STORAGE

Reservoir storage was diminished again last year and stands at about 60% of normal. Storage on Canadian and Pecos drainages is excellent again as last year. A good water supply is virtually assured for these basins.

WATER SUPPLY OUTLOOK

THE MAP ON THIS PAGE INDICATES THE MOST PROBABLE WATER SUPPLY AS OF THE DATE OF THIS REPORT. ESTIMATES ASSUME AVERAGE CONDITIONS OF SNOW FALL, PRECIPITATION AND OTHER FACTORS FROM THIS DATE TO THE END OF THE FORECAST PERIOD. AS THE SEASON PROGRESSES ACCURACY OF ESTIMATES IMPROVE. IN ADDITION TO EXPECTED STREAM-FLOW, RESERVOIR STORAGE, SOIL MOISTURE IN IRRIGATED AREAS, AND OTHER FACTORS ARE CONSIDERED IN ESTIMATING WATER SUPPLY. ESTIMATES APPLY TO IRRIGATED AREAS ALONG THE MAIN STREAMS AND MAY NOT INDICATE CONDITIONS ON SMALL TRIBUTARIES.

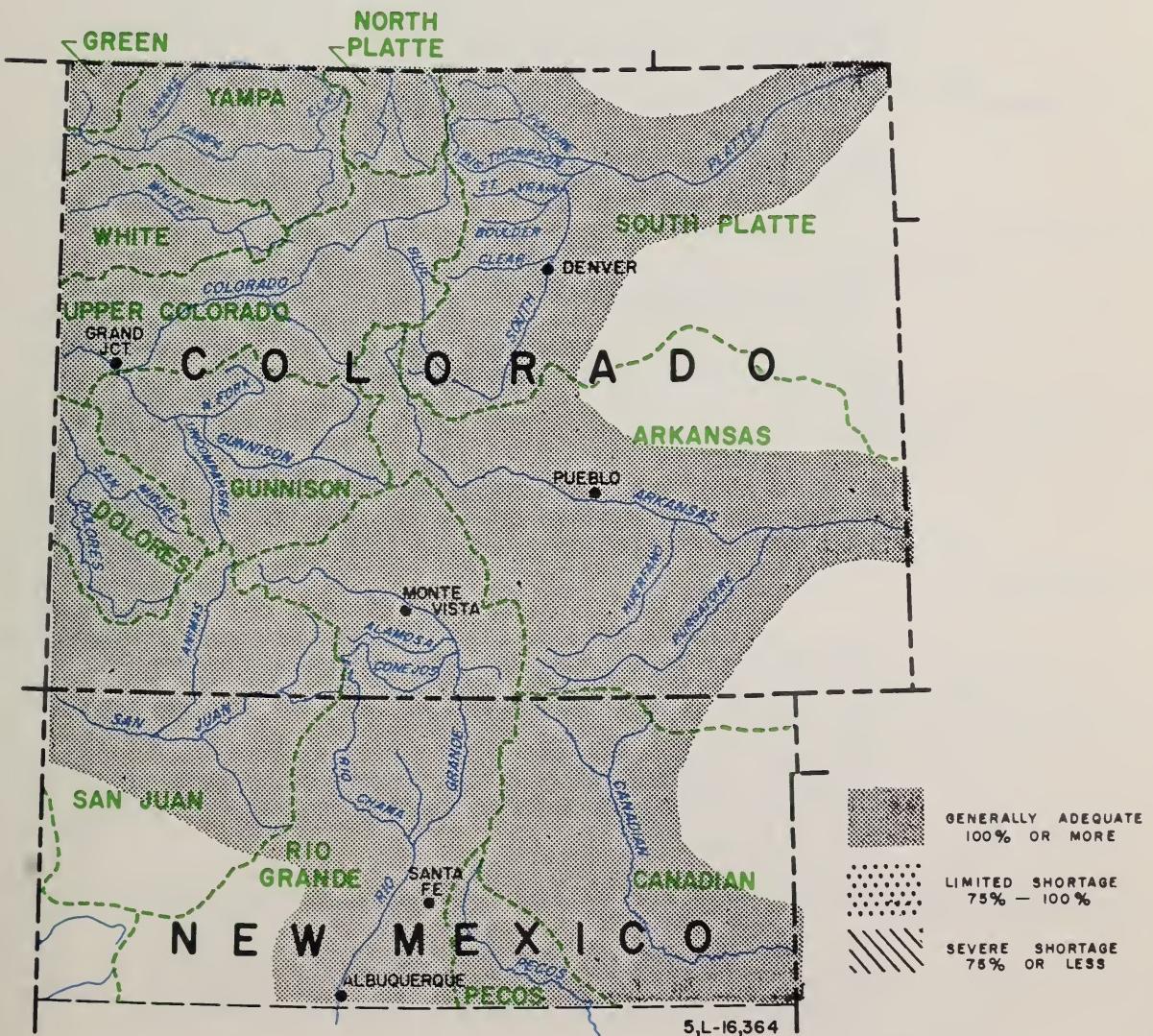


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WATER SUPPLY OUTLOOK BY MAJOR WATERSHED AREAS

WATERSHED I - SOUTH PLATTE RIVER WATERSHED

Describes water supply conditions in Fort Collins, Big Thompson, Longmont, Boulder Valley, Jefferson, Teller-Park, Douglas County, Morgan, Kiowa, West Arapahoe, West Adams, East Adams, Platte Valley, Southeast Weld, and West Greeley Soil Conservation Districts.

WATERSHED II - ARKANSAS RIVER WATERSHED

Describes water supply conditions in Lake County, Upper Arkansas, Fremont, Custer County Divide, Fountain Valley, Black Squirrel, Horse-Rush Creek, Central Colorado, Turkey Creek, Pueblo, Bessemer, Olney Boone, Cheyenne, Upper Huerfano, Stonewall, Spanish Peaks, Purgatoire, Branson Trinchera, Western Baca County, Southeastern Baca County, Two Buttes, Bent, Timpas, Northeast Prowers, Prowers, West Otero, East Otero, and Big Sandy Soil Conservation Districts.

WATERSHED III - RIO GRANDE WATERSHED (COLORADO)

Describes water supply conditions in Rio Grande, Center, Mosca, Hooper, Mt. Blanca, Sanches, and Culebra Soil Conservation Districts.

WATERSHED IV - RIO GRANDE WATERSHED (NEW MEXICO)

Describes water supply conditions in Lower Cebolla, Abiquiu-Vallecitos, Eastern Taos, Lindrith, Coyote-Canones, Espanola Valley, Pojoaque, Jemez, Santa Fe-Sandoval, Tijeras, Cuba, and Edgewood Soil Conservation Districts.

WATERSHED V - DOLORES, SAN JUAN, AND ANIMAS RIVERS WATERSHED

Describes water supply conditions in San Miguel Basin, Dove Creek, Dolores, Mancos, LaPlata, Pine River, San Juan, and Glade Park Soil Conservation Districts.

WATERSHED VI - GUNNISON RIVER WATERSHED

Describes water supply conditions in Delta, Gunnison, Cimarron, Shavano, and Uncompahgre Soil Conservation Districts.

WATERSHED VII - COLORADO RIVER WATERSHED

Describes water supply conditions in DeBeque, Lower Grand Valley, Bookcliff, Eagle County, Middle Park, Glade Park, Upper Grand Valley, Plateau Valley, South Side, and Mt. Sopris Soil Conservation Districts.

WATERSHED VIII - YAMPA, WHITE AND NORTH PLATTE RIVERS WATERSHED

Describes water supply conditions in Yampa, Moffat, West Routt, East Routt, North Park, Upper White River, Lower White River, and Douglas Creek Soil Conservation Districts.

WATERSHED IX - LOWER SOUTH PLATTE RIVER WATERSHED

Describes water supply conditions in Sedgwick, South Platte, Haxton, Peetz, Padroni, Morgan Rock Creek and Yuma Soil Conservation Districts.

**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

**SOUTH PLATTE RIVER WATERSHED IN COLORADO
as of**

FEBRUARY 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER

SNOW PACK OVER THE ENTIRE BASIN IS ABOVE NORMAL. NOT ONLY IS SNOW COVER EXCELLENT IN THE MOUNTAINS, BUT MOST OF THE PLAINS AREA HAS BEEN COVERED WITH FROM A FEW INCHES TO A FOOT OR MORE ALL MONTH. COLD TEMPERATURES HAS PREVAILED MOST OF THE MONTH, HOWEVER, THE LAST WEEK THAWING TEMPERATURES HAVE EXISTED. SNOW COVER IN THE MOUNTAIN AREAS STANDS AT ABOUT 130% OF THE 15-YEAR AVERAGE. BOTH THE NORTHERN AND SOUTHERN PARTS OF THE BASIN HAVE ABOUT EQUAL SNOW.

IF THIS TREND CONTINUES, EXCELLENT WATER SUPPLIES CAN BE ANTICIPATED THIS YEAR.

LESS THAN HALF OF THE SNOW SEASON HAS PASSED. SNOWFALL MUST CONTINUE TO BE GOOD TO INSURE A GOOD WATER SUPPLY.

SOIL MOISTURE

SOIL MOISTURE AT THE HIGH ELEVATIONS IS INDICATING NEAR A RECORD HIGH. HEAVY PRECIPITATION DURING THE LATE SUMMER AND FALL FILLED THE SOIL MANTLE AND SUBSEQUENT EARLY SNOWS HAVE KEPT THE SOILS SATURATED.

SOILS IN THE IRRIGATED AREAS ARE ALSO IN VERY GOOD CONDITION. THIS CONDITION COULD ADD MATERIALLY TO THE ANTICIPATED RUNOFF THIS SPRING.

RESERVOIR STORAGE

CARRY-OVER STORAGE IN THIS BASIN IS ABOUT 125% OF THE 15-YEAR AVERAGE. THE CITY OF DENVER STORAGE IS AS GOOD AS IT HAS EVER BEEN AT THIS TIME OF THE YEAR. RESERVOIRS ON THE CACHE LA POUDRE, BOULDER, AND BIG THOMPSON ARE GENERALLY ABOVE NORMAL AND SIMILAR TO LAST YEAR. THESE WILL BE AN EXCELLENT SUPPLEMENT TO THE ANTICIPATED SPRING RUNOFFS.

THE BIG THOMPSON PROJECT CONTAINS 573,000 ACRE FEET OF WATER COMPARED TO A NORMAL OF ONLY 376,000 ACRE FEET. LAST YEAR THIS RESERVOIR SYSTEM CONTAINED 420,000 ACRE FEET.

NUMERICAL FORECASTS ARE NOT MADE UNTIL MARCH 1.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

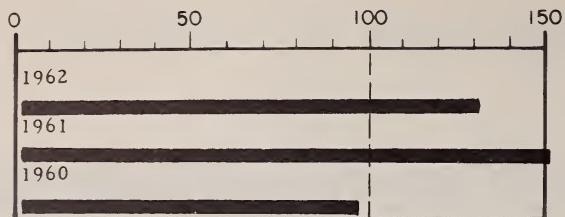
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

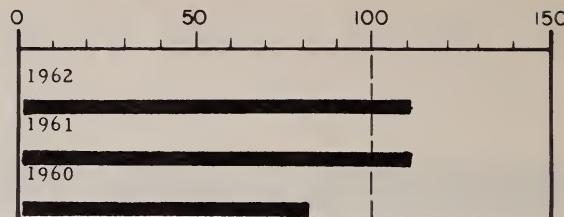
R. G. Wilson, Area Conservationist,
Littleton, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

CACHE LA POUDRE - BOULDER



CLEAR CREEK - UPPER SOUTH PLATTE



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Antero	33.0	15.7	15.7	14.9
Black Hollow	8.0	4.7	2.2	3.4
Boyd Lake	44.0	4.1	34.6	18.5
Cache La Poudre	9.5	9.3	4.6	7.6
Carter Lake *	108.9	80.6	63.2	69.2
Chambers Lake	8.8	6.8	1.4	2.6
Cheeseman	79.0	79.1	60.9	52.7
Cobb Lake	34.3	20.4	12.9	5.5
Eleven Mile	81.9	97.8	97.8	69.4
Fossil Creek	11.6	7.6	6.7	7.9
Gross	43.1	40.6	19.0	--
Halligan	6.4	4.8	2.5	2.0
Horsetooth *	143.5	121.7	89.2	94.0
Lake Loveland	14.3	8.7	7.6	7.0
Lone Tree	9.2	7.8	4.3	8.4
Mariano	5.4	4.9	3.9	3.1
Marshall	10.3	6.0	0.9	3.5
Marston	18.9	16.9	5.2	15.1
Milton	24.4	12.3	14.0	12.8
Standley	18.5	13.1	7.0	12.4
Terry Lake	8.2	5.8	0.9	4.0
Union	12.7	12.0	8.4	7.2
Windsor	18.6	13.3	7.1	15.6

MEASURED FIRST OF MONTH

* Shorter Period.

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER		WINTER	
	AVE.	DEP.	AVE.	DEP.
Upper South Flatte	8.07	+3.71	.29	-.29

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alpine Camp	7.0	4.2	0.5	1.7
Beaver Dam	6.0	3.3	0.7	1.5
Feather	6.0	2.9	0.0	1.3
Guard Station	7.0	4.6	0.7	1.4
Hoop Creek	6.0	5.4	0.5	2.4
Hoosier Pass	7.0	6.9	0.9	2.9
Kenosha Pass	7.0	4.2	0.4	--
Laramie Road	7.0	6.0	0.8	2.6
Two Mile	8.0	5.8	0.5	3.3

ALL PROFILES 4 FEET DEEP

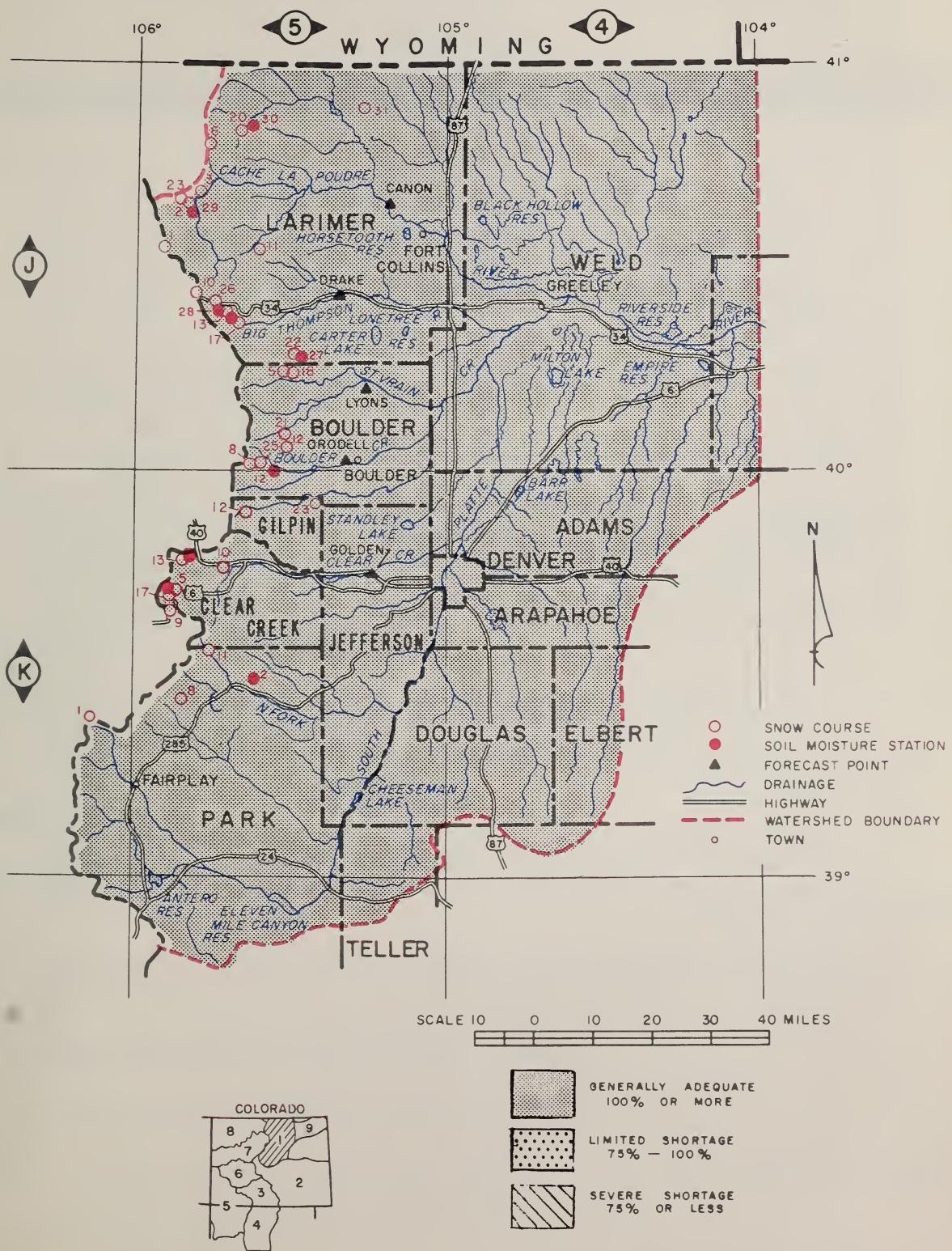
STREAMFLOW FORECAST

APRIL THROUGH SEPTEMBER

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
No Forecasts until March 1.			

- (1) Observed flow minus diversions from Michigan, Colorado and Laramie rivers, plus diversions for irrigation and municipal use above station.
- (2) Observed flow plus by-pass to power plants.
- (3) Observed flow minus diversions through Jones Tunnel.

SOUTH PLATTE RIVER WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	CURRENT INFORMATION		PAST RECORD	
					LAST YEAR	AVERAGE 1943 - 57		
SOUTH PLATTE RIVER AND TRIBUTARIES								
Baltimore	5K23	2/1	28	7.7	4.2	--		
Berthoud Falls	5K13	2/1	43	12.0	3.9	9.2*		
Big South	5J3	1/28	11	2.2	1.4	1.8		
Boulder Falls	5J25	1/30	36	4.9	6.2	8.0*		
Cameron Pass (A)	5J1	2/1	63	21.2	7.8	13.6		
Chambers Lake	5J2	1/28	27	7.4	3.1	5.6		
Copeland Lake	5J18	1/29	17	4.0	2.7	4.0*		
Deadman Hill (A)	5J6	2/1	55	16.8	6.1	8.8*		
Deer Ridge	5J17	1/29	24	5.9	1.7	3.7*		
Empire	5K10	2/1	27	5.9	4.1	4.5*		
Geneva Park	5K11	NS	--	--	--	3.9*		
Grizzly Peak (B)	5K9	1/29	54	15.0	6.1	11.3		
Hidden Valley	5J13	1/28	41	10.1	5.3	7.2		
Hoosier Pass	6K1	1/30	41	10.8	6.0	7.2		
Hour Glass Lake	5J11	Est.	22	5.6	NS	4.1*		
Jefferson Creek	5K8	NS	--	--	NS	5.6		
Lake Irene	5J10	Est.	65	22.2	5.5	13.6		
Long's Peak	5J22	1/27	34	7.5	4.9	7.8*		
Lost Lake	5J23	1/28	36	10.2	5.3	7.4*		
Loveland Pass	5K5	1/31	44	13.2	6.2	9.4		
Loveland Lift No. 1	5K24	1/29	73	22.3	10.3	—		
Pine Creek	5J31	1/30	13	2.3	2.2	—		
Red Feather	5J20	1/29	25	7.1	3.2	5.1*		
Two Mile	5J26	1/28	56	15.0	5.4	7.8*		
University Camp	5J8	1/30	47	10.5	9.4	12.7		
Ward	5J21	1/29	21	4.9	4.1	3.7*		
Wild Basin	5J5	Est.	45	13.6	4.3	9.0		

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

Jack N. Washichek and Don W. McAndrew
Soil Conservation Service
Colorado State University
Ft. Collins, Colorado

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

**ARKANSAS RIVER WATERSHED IN COLORADO
as of
FEBRUARY 1, 1962**

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER

SNOW PACK ON THE ARKANSAS RIVER DRAINAGE IS HIGHER THAN IT HAS BEEN FOR SEVERAL YEARS. THE DRAINAGE AS A WHOLE IS ABOUT 147% OF THE 15-YEAR NORMAL. THE HIGH ELEVATION SNOW COURSES HAVE ABOUT THE SAME PERCENTAGE OF SNOW COVER AS THE LOW COURSES. UNTIL JUST RECENTLY, EVEN THE VALLEY FLOOR HAD CONSIDERABLE SNOW COVER. THIS EITHER HAS DISSIPATED, OR WILL BE, SHORTLY WITH THE RELATIVELY HIGH TEMPERATURES WE ARE ENCOUNTERING.

SNOW STARTED FALLING EARLY ON THE DRAINAGE AND CONTINUED TO FALL THROUGH JANUARY.

IF THIS TREND CONTINUES, WATER SUPPLIES WILL BE ADEQUATE THIS SUMMER.

SOIL MOISTURE

SOIL MOISTURE AT THE HIGH ELEVATIONS IS EXCELLENT. IT IS CONSIDERABLY BETTER THAN LAST YEAR AND SLIGHTLY BETTER THAN NORMAL. SOIL MOISTURE IN THE HIGH MOUNTAINS IS NORMALLY FAIRLY GOOD IN THIS AREA.

SOIL MOISTURE IN THE IRRIGATED AREAS IS REPORTED GOOD AS FAR DOWN THE RIVER AS GARDEN CITY, KANSAS.

GOOD SOIL MOISTURE WILL TEND TO INCREASE THE ANTICIPATED SPRING RUNOFF. WITH CONSIDERABLY ABOVE NORMAL SNOW COVER AND GOOD SOIL MOISTURE CONDITIONS, AN ADEQUATE WATER SUPPLY IS ANTICIPATED THIS SUMMER.

RESERVOIR STORAGE

CARRY-OVER STORAGE IS ONLY ABOUT 70% OF NORMAL. PRIMARILY BECAUSE SHORTAGE IN JOHN MARTIN AND THE GREAT PLAINS RESERVOIRS. GREAT PLAINS HAS CONSIDERABLY MORE WATER STORED THAN LAST YEAR, AS HAS JOHN MARTIN.

THE RIVER IS RUNNING NORMAL TO ABOVE, SO SOME ADDITIONAL WATER MAY BE ADDED TO STORAGE PRIOR TO THE IRRIGATION SEASON.

AS A WHOLE RESERVOIR STORAGE IS LOOKING UP AND EXPECTED TO BE A GOOD SUPPLEMENT TO RIVER FLOW THIS SUMMER.

NUMERICAL FORECASTS ARE NOT MADE UNTIL MARCH 1.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

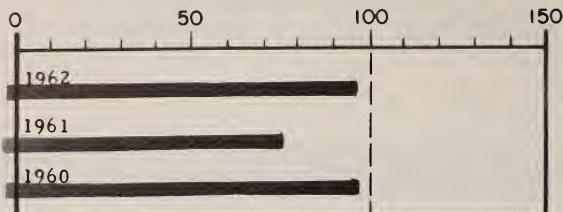
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

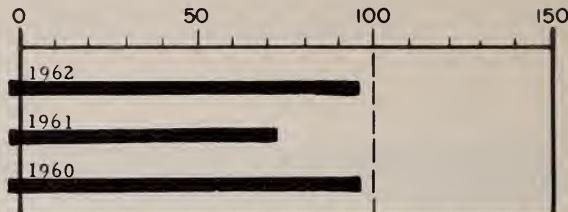
Dearl B. Beach, Area Conservationist,
Colorado Springs, Colorado
Will D. McCorkle, Area Conservationist,
Lamar, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

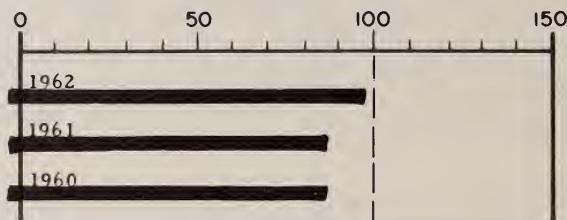
ARKANSAS ABOVE CADDIA DAM



ARKANSAS BELOW CADDIA DAM



PURGATOIRE - CUCHARAS - HUERFANO



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Adobe Creek	61.6	0	0	22.4
Clear Creek	11.4	10.0	5.5	5.7
Cucharas	40.0	6.8	1.5	5.5
Great Plains	150.0	28.9	9.4	44.4
Horse Creek	26.9	6.6	9.6	7.3
John Martin	366.6	19.4	9.9	58.5
Meredith	41.9	14.1	0	13.4
Model	15.0	5.2	4.1	2.2
Sugar Loaf	17.4	10.6	1.5	8.0
Twin Lakes	57.9	30.0	8.9	23.7

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Garfield	7.0	4.6	3.4	4.3
King	8.0	5.5	2.6	5.4
Lake Creek	6.0	4.1	1.6	3.4
LaVeta Pass	8.0	4.2	7.2	3.3
Leadville	7.0	3.8	0.6	1.5

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE. DEP.	WINTER AV Dec. DEP.	
		Dec.	Dec.
Arkansas	8.36 +3.49	.98	+.28

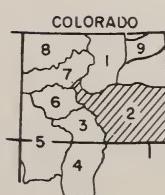
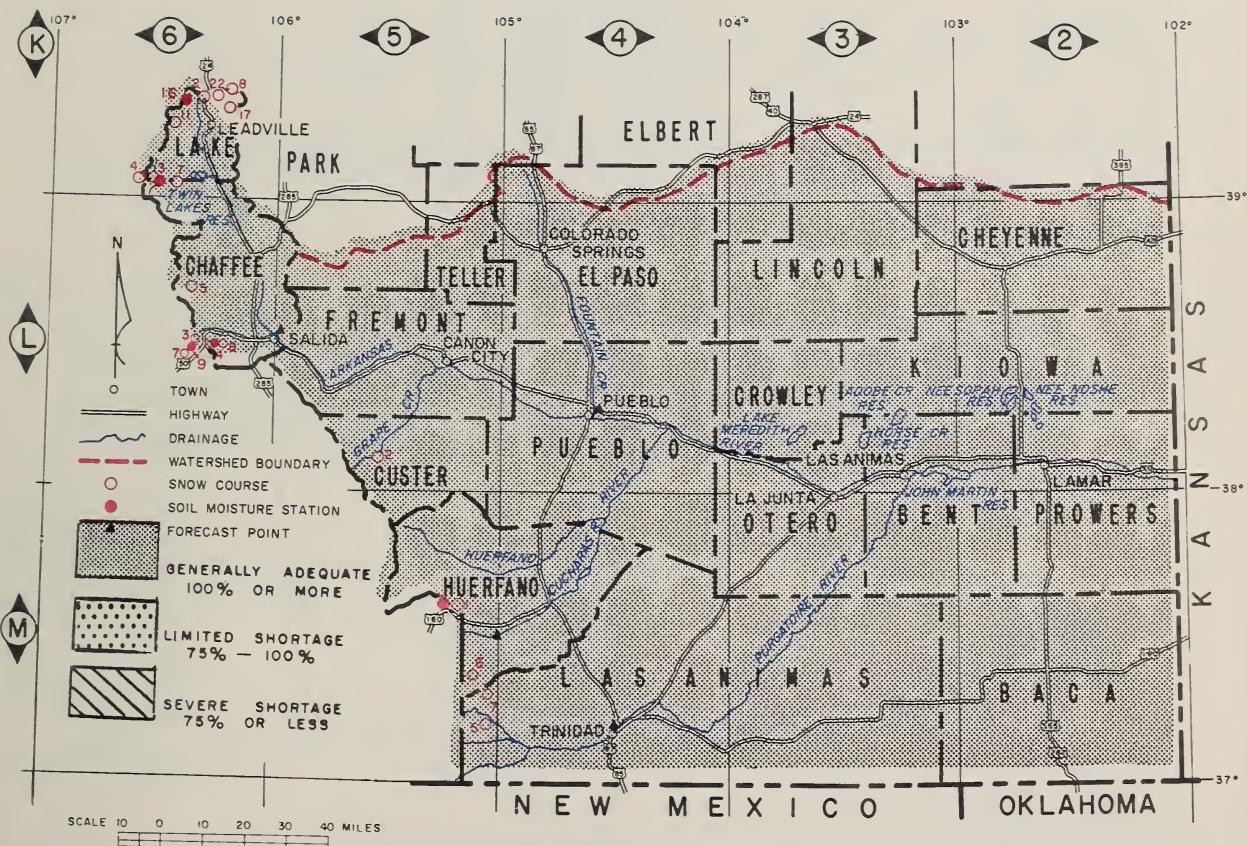
PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

STREAMFLOW FORECAST APRIL THROUGH SEPTEMBER

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
No Forecast until March 1.			

(1) Observed flow plus change in storage in Clear Creek, Twin Lakes, and Sugar Loaf Reservoirs minus diversions through Busk-Ivanhoe and Twin Lake Tunnels and Ewing, Fremont Pass, Wurtz and Columbine Ditches.

ARKANSAS RIVER WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES) LAST YEAR	AVERAGE 1943 - 57
ARKANSAS RIVER						
Blue Lakes	5M6	1/29	14	2.9	--	--
Bigelow Divide	5L3	NS	--	--	--	--
Bourbon	5M5	NS	--	--	--	--
Cooper Hill	6K23	1/28	42	8.9	4.7	--
Cucharas Pass	5M7	1/29	26	6.3	--	--
East Fork	6K17	1/31	32	8.1	3.1	5.8*
Four Mile Park	6K7	1/28	32	7.7	2.7	3.0
Fremont Pass	6K8	1/31	54	15.0	6.7	10.3
Garfield	6L8	1/29	47	12.7	8.8	--
LaVeta Pass (B)	5M1	1/30	32	9.6	2.8	6.6
Monarch Pass	6L4	1/29	56	15.2	10.3	10.8
St. Elmo (A)	6L5	1/30	50	11.5	6.3	8.3*
Tennessee Pass	6K2	1/28	36	8.5	3.3	6.9
Tomichi	6L7	1/29	42	10.5	4.9	--
Twin Lakes Tunnel	6K3	1/26	49	12.1	2.1	6.6
Westcliffe	5L2	NS	--	--	--	--

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by
 Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

**UPPER RIO GRANDE WATERSHED IN COLORADO
as of**

FEBRUARY 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER

SNOW COVER IN THIS BASIN IS VASTLY IMPROVED OVER A YEAR AGO AND ABOUT 135% OF NORMAL.

SNOW PACK IS ESPECIALLY GOOD ON THE ALAMOSA AND CONEJOS RIVER DRAINAGES.

ONE OF THE EARLIEST SNOW FALLS ON RECORD WAS EXPERIENCED THIS YEAR.

IF THE SNOW PACK CONTINUES TO INCREASE AT THE PRESENT RATE, IRRIGATED AREAS OF THE STATE SHOULD HAVE A MORE THAN ADEQUATE WATER SUPPLY THIS SUMMER.

SOIL MOISTURE

SOIL MOISTURE IS POORER THIS YEAR THAN LAST, BUT STILL ABOVE NORMAL. THE LAVETA PASS AREA WAS ALMOST SATURATED LAST YEAR AT THIS TIME AND IS ONLY ABOUT 50% SATURATED THIS YEAR. VALLEY SOILS ARE REPORTED AS FAIR TO GOOD. THE GOOD SOIL MOISTURE WILL INCREASE THE RUNOFF THIS SUMMER FROM ALL STREAMS IN THIS BASIN.

RESERVOIR STORAGE

RESERVOIR STORAGE IS ABOUT 90% OF NORMAL, BUT BETTER THAN LAST YEAR AT THIS TIME.

PRECIPITATION

PRECIPITATION DURING THE FALL MONTHS WAS ABOVE NORMAL, BUT THE LAST TWO MONTHS HAS BEEN SLIGHTLY LESS THAN NORMAL.

NUMERICAL FORECASTS ARE NOT MADE UNTIL MARCH 1.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

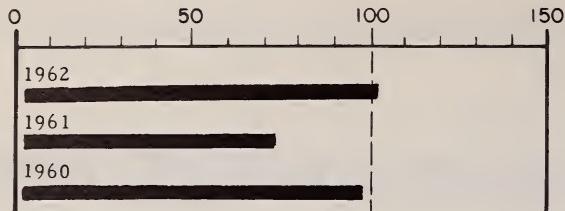
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

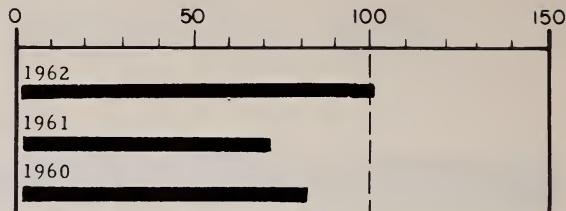
Benny Martin, Area Conservationist,
Monte Vista, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

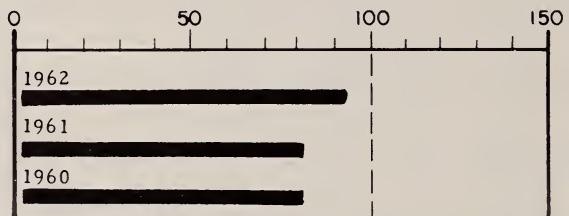
RIO GRANDE



ALAMOSA - CONEJOS



SANGRE DE CRISTO STREAMS



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Continental	26.7	4.9	4.1	7.1
Platoro	60.0	3.4	4.0	4.7
Rio Grande	45.8	9.3	5.3	11.4
Sanchez	103.2	11.9	8.1	10.9
Santa Maria	45.0	3.0	2.1	7.5
Terrace	17.7	7.1	2.4	3.0

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE. DEP.		WINTER AVE. DEC. DEP.	
	8.26	+3.74	.42	-.07
Rio Grande (Colo.)				

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alberta Park	9.0	4.1	1.1	3.3
Bristol View	7.0	3.9	6.7	3.6
LaVeta Pass	8.0	4.2	7.2	3.3
Mogote	7.0	2.1	1.8	1.5

ALL PROFILES 4 FEET DEEP

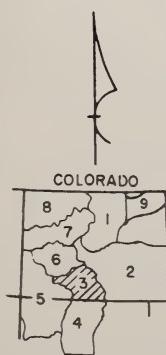
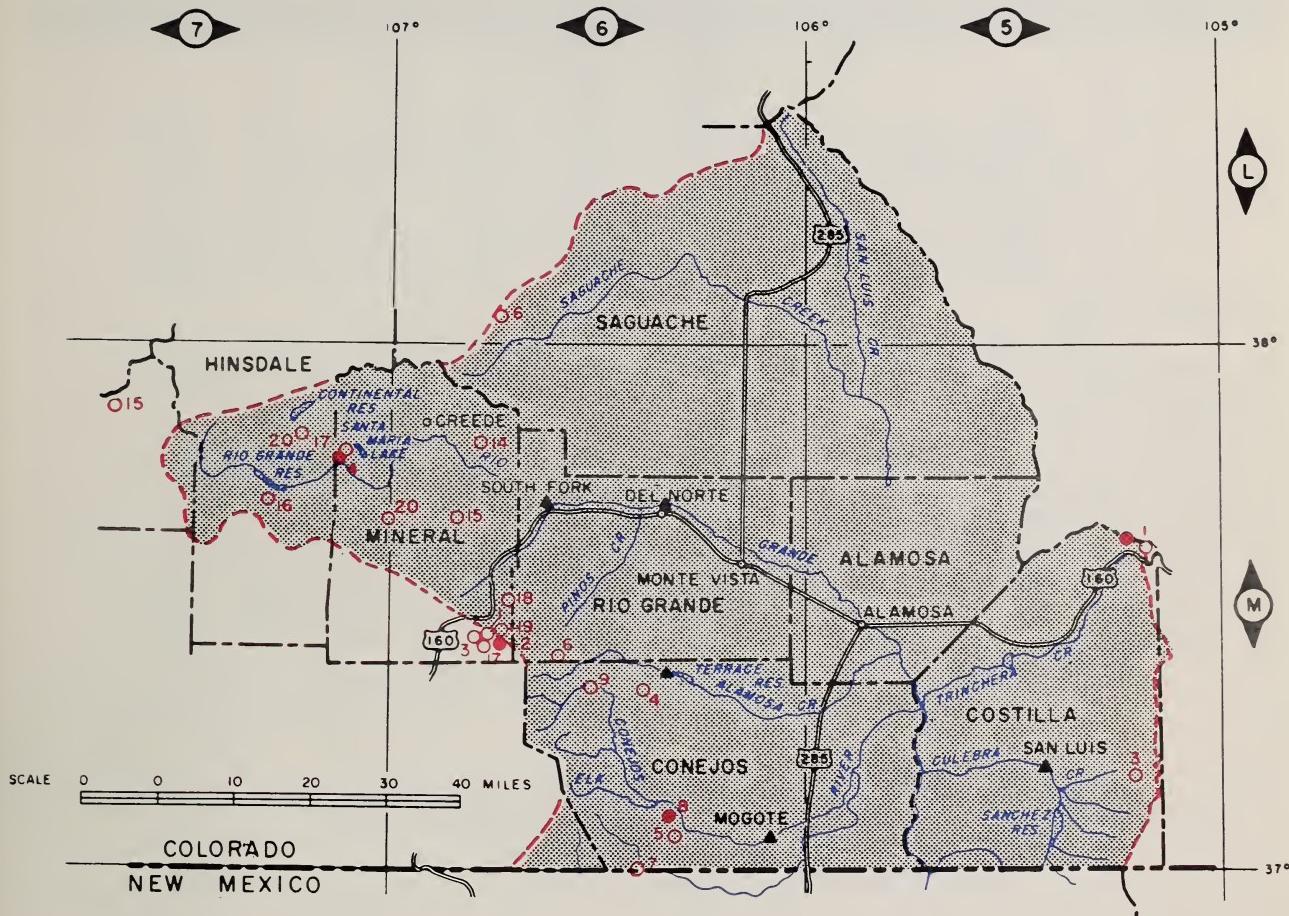
STREAMFLOW FORECAST APRIL THROUGH SEPTEMBER

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
No Forecasts until March 1.			

(1) Observed flow plus change in storage in Santa Maria, Rio Grande, and Continental Reservoir

(2) Observed flow plus changes in Sanchez Reservoir.

UPPER RIO GRANDE WATERSHED IN COLORADO



○ SNOW COURSE
 ● SOIL MOISTURE STATION
 ▲ FORECAST POINT
 ~ DRAINAGE
 — HIGHWAY
 - - - WATERSHED BOUNDARY
 □ TOWN

GENERALLY ADEQUATE 100% OR MORE
LIMITED SHORTAGE 75% - 100%
SEVERE SHORTAGE 75% OR LESS

SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
RIO GRANDE IN COLORADO						
Cochetopa Pass	6M16	1/25	23	4.0	4.8	3.5*
Hiway	6M19	1/29	61	18.2	6.7	--
Lake Humphreys	6M15	NS	--	--	--	--
Pass Creek	6M18	1/30	40	10.6	3.1	--
Pool Table (A)	5M14	1/30	41	11.1	NS	--
Porcupine (A)	7M20	1/30	52	15.1	4.8	6.9*
Red Mountain Pass (B)	7M15	1/30	76	24.5	12.2	14.9
Santa Maria	7M17	1/29	25	6.2	1.3	4.0
Upper Rio Grande	7M16	1/29	36	8.2	3.6	5.6
Wolf Creek Pass	6M1	1/29	70	21.0	7.6	19.5
Wolf Creek Summit (B)	7M17	1/29	71	22.0	8.1	17.6*
ALAMOSA RIVER						
Silver Lakes	6M4	NS	--	--	3.9	5.1
Summitville (A)	6M6	1/30	62	16.5	8.7	11.1*
CONEJOS RIVER						
Cumbres Pass (A)	6M7	1/30	50	15.0	8.2	13.5
Platoro (A)	6M9	1/30	66	17.8	NS	--
River Springs	6M5	1/29	29	6.4	NS	6.2
SANGRE DE CRISTO RANGE (Colo)						
Blue Lakes (B)	5M6	1/29	14	2.9	--	--
Cucharas Pass (B)	5M7	1/29	26	6.3	--	--
Culebra	5M3	1/30	29	5.7	NS	6.5
La Veta Pass	5M1	1/30	32	9.6	2.8	6.6

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

RIO GRANDE WATERSHED IN NEW MEXICO
as of
FEBRUARY 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER

SNOW COVER IN THE HEADWATERS AREA OF COLORADO IS ABOUT 128% OF NORMAL. THE MIDDLE AREA OF THE RIO GRANDE IN NEW MEXICO HAS A SIMILAR SNOW PACK. IT IS ABOUT 130% OF NORMAL. THIS IS CONSIDERABLY BETTER THAN LAST YEAR, BUT ADDITIONAL SNOW IS NEEDED TO INSURE A BIG ENOUGH RUNOFF TO ALLEVIATE THE SHORTAGE THAT HAS EXISTED FOR SEVERAL YEARS.

THE SNOW PACK WAS LAYED DOWN BY SEVERAL GENERAL STORMS WHICH BLANKETED THE ENTIRE MIDDLE AND UPPER BASINS. THIS ACCOUNTS FOR SIMILAR PERCENTAGES OF SNOW COVER.

SNOW COVER ON PECOS AND CANADIAN BASINS IS EXCELLENT.

SOIL MOISTURE

SOIL MOISTURE CONDITIONS ARE FAR BETTER THAN LAST YEAR AT THIS TIME. LAST SPRING AND FALL PRECIPITATION SATURATED THE HIGH ELEVATION SOILS AND THEY ARE NOW IN EXCELLENT CONDITION.

SOIL IN THE UPPER BASIN IN COLORADO AND SOILS IN THE MIDDLE BASIN IN NEW MEXICO ARE ABOUT THE SAME AS FAR AS MOISTURE CONTENT IS CONCERNED.

VALLEY SOILS ARE REPORTED AS GOOD THROUGHOUT THE ENTIRE LENGTH OF THE RIO GRANDE BASIN.

SOILS IN THE VALLEY OF THE CANADIAN AND PECOS DRAINAGE ARE REPORTED AS FAIR.

RESERVOIR STORAGE

CARRY-OVER STORAGE IN ELEPHANT BUTTE RESERVOIR HAS DECLINED FROM LAST YEAR. IT NOW CONTAINS ABOUT 400,000 ACRE FEET COMPARED TO 581,000 ACRE FEET NORMALLY. RESERVOIRS WERE DEPLETED LAST YEAR TO OFFSET THE LESS THAN NORMAL RUNOFF. IF THE SNOW PACK CONTINUES TO GROW AT THE CURRENT RATE, PERHAPS THIS DEPLETION WILL CEASE.

OTHER RESERVOIRS ON THE MAIN STEM ARE GENERALLY BELOW LAST YEAR AND MUCH BELOW NORMAL.

CONCHAS RESERVOIR ON THE CANADIAN BASIN IS FULL AND ANOTHER GOOD WATER SUPPLY IS ANTICIPATED IN THIS AREA.

NUMERICAL FORECASTS ARE NOT MADE UNTIL MARCH 1.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

ISSUED BY: SOIL CONSERVATION SERVICE

Courtney A. Tidwell, State Conservationist,
New Mexico

H. M. Cavett, Area Conservationist,
Santa Fe, New Mexico

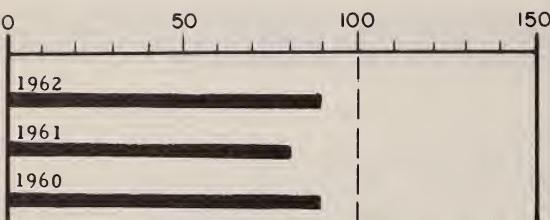
WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

RESERVOIR STORAGE (1,000 AC. FT.)

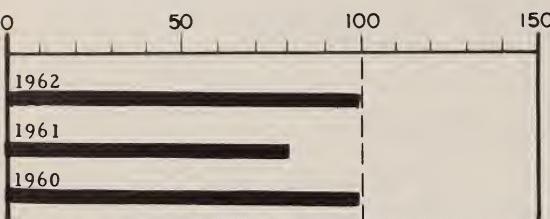
RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Alamorgordo	122.1	110.0	122.1	47.4
Elephant Butte	2206.8	399.4	460.8	581.2
El Vado	194.5	2.5	1.8	34.9
Caballo	344.0	21.9	18.8	155.7
McMillan-Avalon	37.0	21.4	43.4	13.7
Red Bluff(Tex)	307.0	60.9	120.0	87.1

MEASURED FIRST OF MONTH

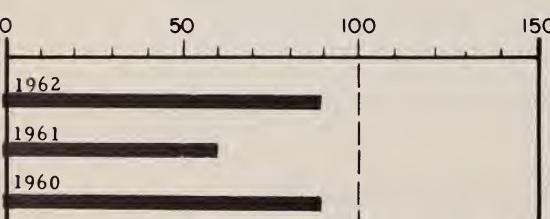
RIO CHAMA



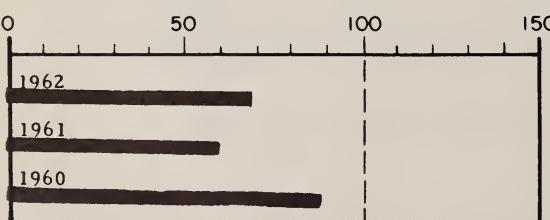
UPPER RIO GRANDE



MIDDLE RIO GRANDE



LOWER RIO GRANDE



STATION	AUGUST THROUGH NOVEMBER		WINTER	
	AVE.	DEP.	AVE.	Dec.
Lower Rio Grande	5.52	+1.84	.58	+.05
Middle Rio Grande	9.05	+2.72	1.42	+.33
Upper Rio Grande	8.26	+3.74	.42	+.07

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alberta Park (Colo)	9.0	4.1	1.1	3.3
Aqua Piedra	7.2	1.1	2.9	1.7
Bateman	6.7	3.0	0.2	2.7
Big Tesuque	3.7	1.9	0.7	1.4
Bristol View (Colo)	7.0	3.9	6.7	3.6
Chamita (New Mex.)	8.0	3.4	1.9	2.5
Fenton Hill	6.5	4.3	4.3	--
Mogote (Colo)	7.0	2.1	1.8	1.5
Red Summit	4.8	0.4	0.2	2.2
Rio En Medio	3.5	2.0	0.1	1.2
Taos Canyon	3.3	2.5	0.6	1.4

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST

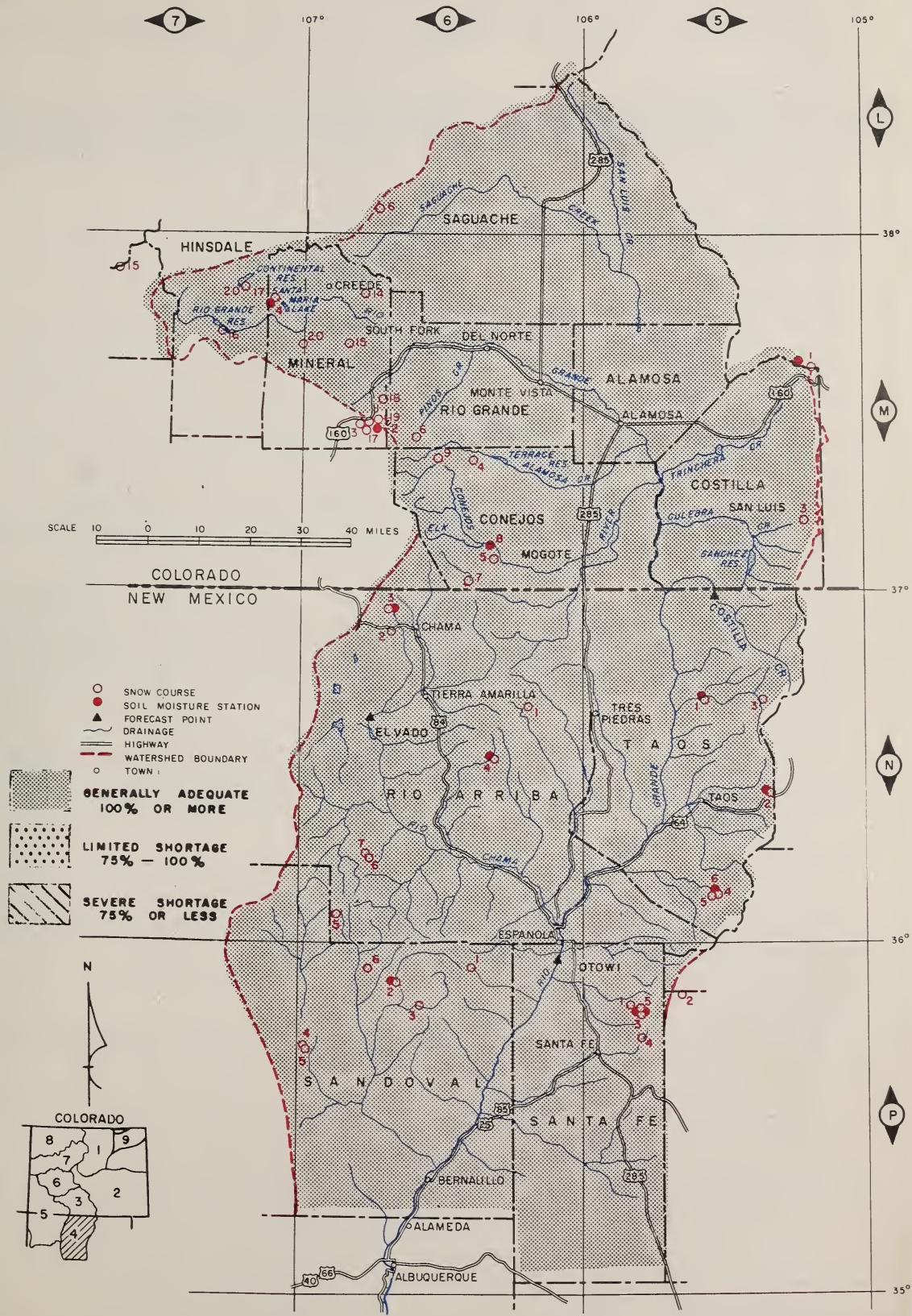
APRIL THROUGH SEPTEMBER

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
No Forecasts until March 1.			

(10) Observed flow plus changes in storage in Santa Maria, Rio Grande, Continental, Terrace, Sanchez, Platoro and El Vado Reservoirs.

* Rio Grande at Otowi and Rio Grande at San Marcial Forecast and Average Mar-July inclusive.

RIO GRANDE WATERSHED IN NEW MEXICO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
RIO GRANDE (Colorado)						
Cochetopa Pass	6L6	1/25	23	4.0	4.8	3.5*
Culebra	5M3	1/30	29	5.7	NS	6.5
Cumbres Pass (A)	6M7	1/30	50	15.0	8.2	13.5
Hiway	6M19	1/29	61	18.2	6.7	--
Lake Humphreys	6M15	NS	--	--	NS	--
LaVeta Pass	5M1	1/30	32	9.6	2.8	6.6
Pass Creek	6M18	1/30	40	16.6	3.1	--
Platoro (A)	6M9	1/30	66	17.8	NS	--
Pool Table (A)	6M14	1/30	41	11.1	NS	--
Porcupine (A)	7M20	1/30	52	15.1	4.8	6.9*
River Springs	6M5	1/29	29	6.4	NS	6.2
Santa Maria	7M17	1/29	25	6.2	1.3	4.0
Silver Lakes	6M4	NS	--	--	3.9	5.1
Summitville (A)	6M6	1/30	62	16.5	8.7	11.1*
Upper Rio Grande	7M16	1/29	36	8.2	3.6	5.6
Wolf Creek Pass	6M1	1/29	70	21.0	7.6	19.5
Wolf Creek Summit	6M17	1/29	71	22.0	8.1	17.6*
RIO GRANDE (New Mexico)						
Aspen Grove	5P1	NS	--	--	NS	3.2
Bateman	6N4	NS	--	--	NS	7.6*
Big Tesuque	5P3	1/29	24	5.2	2.0	3.4
Chama Divide	6N2	1/29	14	3.3	2.8	3.9
Chamita	6N3	1/29	33	7.5	4.5	7.3
Cordova (A)	5N5	1/30	30	6.6	6.0	6.8
Elk Cabin	5P4	1/29	16	3.9	--	3.0*
Fenton Hill	6P2	1/30	21	4.4	3.7	3.0*
Hematite Park	5N3	2/1	19	5.1	2.8	3.5
Panchuela	5F2	1/28	20	4.9	2.0	2.6
Payrole (A)	6N1	1/30	39	9.0	5.9	6.4
Quemazon	6P1	1/27	40	9.9	8.7	3.3*
Red River	5N1	2/1	23	4.7	3.1	5.4
Rio En Medio	5P5	1/29	34	9.0	4.2	5.3*
NOTE: 1943 - 57 (ADJUSTED AVERAGES)						
Taos Canyon Survey	5H2	2/1	14	3.0	3.4	4.7
(A) - AIR OBSERVED (B) - ON ADJACENT DRAINAGE						
Tres Ritos	5N4	1/29	.18	4.5	3.3	3.9

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
SAN MIGUEL - DOLORES - ANIMAS - SAN JUAN
WATERSHEDS IN COLORADO & NEW MEXICO**

**as of
FEBRUARY 1, 1962**

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER

THE SNOW PACK IN THIS AREA IS ABOVE NORMAL, HOWEVER, NOT SUFFICIENTLY HIGH TO GUARANTEE A GOOD WATER YEAR.

THE SAN JUAN BASIN IS ABOUT 108 % OF NORMAL, AND THE DOLORES HAS ONLY 102%. PROSPECTS FOR A GOOD WATER SUPPLY ARE BETTER ON THE ANIMAS RIVER, WHERE SNOW COVER IS NOW 130% OF THE 15-YEAR NORMAL.

LESS THAN HALF OF THE SNOW SEASON HAS PASSED SO THERE IS STILL AMPLE TIME TO BUILD THE SNOW PACK.

THE HIGH ELEVATION SNOW COURSES ARE GENERALLY ABOVE NORMAL, WHILE THE MEDIUM TO LOW COURSES ARE JUST NORMAL AND EVEN BELOW.

SOIL MOISTURE

SOIL MOISTURE OVER THE AREA IS BETTER THAN LAST YEAR, BUT NOT MUCH BETTER THAN THE AVERAGE. THIS AREA GENERALLY HAS GOOD SOIL MOISTURE, ONE REASON WHY THE CURRENT SOIL MOISTURE IS NOT MUCH ABOVE NORMAL.

PRECIPITATION DURING DECEMBER AND JANUARY WAS GENERALLY BELOW NORMAL. TEMPERATURES HAVE BEEN COLD IN THIS AREA AS WAS TYPICAL OF THE REST OF THE STATE.

RESERVOIRS

RESERVOIR STORAGE IS RATHER LIMITED IN THIS AREA. WE HAVE NOT RECEIVED THE CURRENT FIGURES FOR VALLECITO, BUT GROUNDHOG HAS 5,000 ACRE FEET COMPARED TO 4,000 ACRE FEET LAST YEAR AND 7,100 ACRE FEET AVERAGE.

NUMERICAL FORECASTS ARE NOT MADE UNTIL MARCH 1.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,

Colorado

Benny Martin, Area Conservationist,

Monte Vista, Colorado

E. A. Nicholson, Area Conservationist *

Grand Junction, Colorado

C. A. Tidwell, State Conservationist,

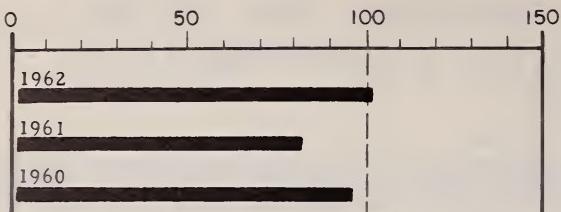
New Mexico

J. B. Christy, Area Conservationist

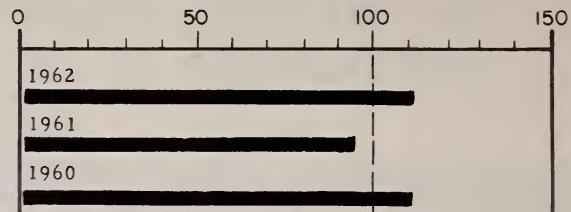
Albuquerque, N. M.

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

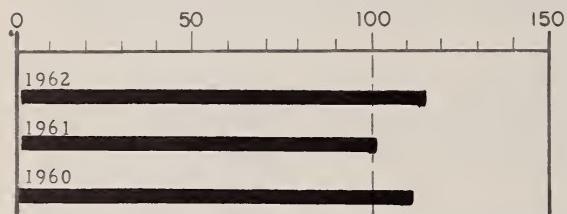
SAN JUAN



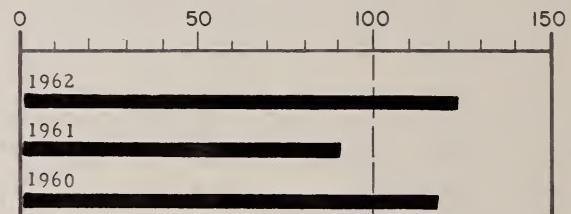
PIEDRA-PINOS-FLORIDA



DOLORES



ANIMAS-LA PLATA



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Groundhog	21.7	5.0	4.0	7.1
Vallecito	126.3	NS	--	42.0

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Cascade	7.0	5.1	4.5	5.4
Dolores	7.0	0.1	0.7	1.7
Lizard Head	7.0	5.7	4.1	5.3
Mineral Creek	7.0	4.9	4.1	4.8
Molas Lake	7.0	3.8	0.9	3.4
Rico	7.0	5.0	4.8	5.0

PRECIPITATION

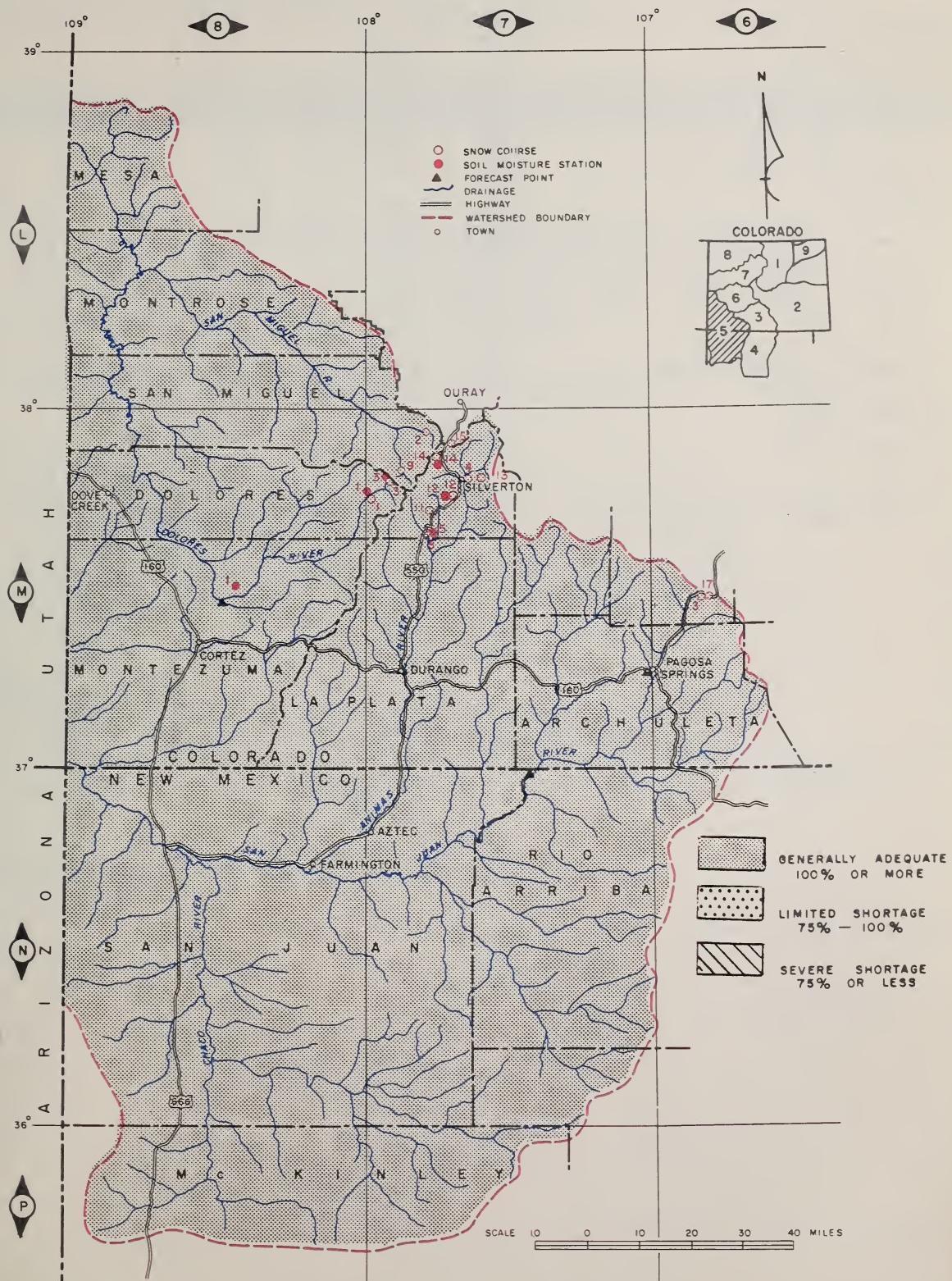
STATION	AUGUST THROUGH NOVEMBER AVE. DEP.	WINTER AVE. Dec. ^{DEP.}
Dolores	8.17	+2.19 .90 -.50
San Juan	11.76	+4.04 1.60 -.05

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

STREAMFLOW FORECAST APRIL THROUGH SEPTEMBER

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
No Forecasts until March 1.			

SAN MIGUEL - DOLORES - ANIMAS - SAN JUAN RIVERS WATERSHEDS IN COLORADO & NEW MEXICO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
SAN JUAN RIVER						
Chama Divide (B)	6N2	1/29	14	3.3	2.8	3.9
Chamita (B)	6N3	1/29	33	7.5	4.5	7.3
Upper San Juan	6M3	1/29	72	21.7	8.6	21.8
Wolf Creek Pass (B)	6M1	1/29	70	21.0	7.6	19.5
Wolf Creek Summit	6M17	1/29	71	22.0	8.1	17.6*
ANIMAS RIVER						
Cascade	7M5	1/30	33	8.5	4.2	9.1
Howardville	7M13	Est.	38	10.0	4.4	8.5*
Ironton Park	7M6	1/29	34	9.5	5.0	7.4
Mineral Creek	7M14	1/30	45	12.8	4.6	7.4*
Molas Lake	7M12	1/30	40	11.5	3.1	10.3*
Red Mountain Pass	6M19	1/30	76	24.5	12.2	14.9*
Silverton Sub-Station	7M4	1/30	26	7.4	2.7	4.3
Spud Mountain	7M11	1/30	55	17.7	7.7	16.8*
DOLORES RIVER						
Lizard Head	7M3	1/30	41	11.8	5.4	9.9*
Rico	7M1	1/30	22	6.4	4.5	6.2
Telluride	7M2	1/26	21	4.5	3.9	5.1
Trout Lake	7M9	1/26	38	9.0	4.6	10.0*

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by
 Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

GUNNISON RIVER WATERSHED IN COLORADO

**as of
FEBRUARY 1, 1962**

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER

SNOW COVER IN THIS AREA IS APPROACHING THE MAXIMUM OF RECORD FOR THIS DATE. THE MCCLURE PASS AREA IS ESPECIALLY HEAVY, RUNNING NEARLY 200% OF NORMAL. AREAS NEAR THE HEADWATERS OF THE GUNNISON HAVE CONSIDERABLY LESS SNOW COVER THAN OTHER AREAS. MUCH OF THE HEADWATERS AREA IS JUST SLIGHTLY ABOVE NORMAL.

SNOWPACK ON THE UNCOMPAGHRE RIVER BASIN IS 125% OF NORMAL. THIS IS CONSIDERABLY BETTER THAN LAST YEAR AT THIS TIME.

SOIL MOISTURE

SOIL MOISTURE CONDITIONS THROUGHOUT THIS AREA IS NEAR THE MAXIMUM OF RECORD AND FAR BETTER THAN LAST YEAR. LAST YEAR ONLY ONE STATION INDICATED MORE THAN A TRACE OF MOISTURE IN THE SOIL, WHILE THIS YEAR ALL STATIONS INDICATE SOILS ARE APPROACHING SATURATION. THIS CONDITION WILL INCREASE EXPECTED SUMMER RUNOFF CONSIDERABLY.

RESERVOIR STORAGE

CARRY-OVER STORAGE IN TAYLOR PARK RESERVOIR IS 75,000 ACRE FEET COMPARED TO 29,000 ACRE FEET OF LAST YEAR AT THIS TIME, AND A 15-YEAR AVERAGE OF 61,000 ACRE FEET. THIS WILL BE AN EXCELLENT SUPPLEMENT TO SPRING RUNOFF.

NUMERICAL FORECASTS ARE NOT MADE UNTIL MARCH 1.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

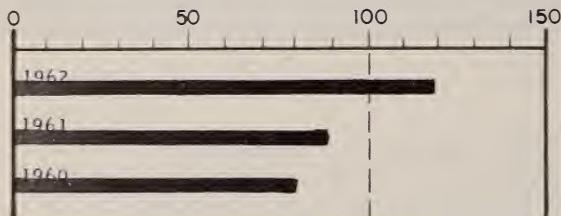
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

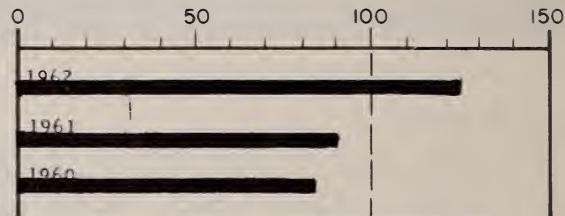
E. A. Nicholson, Area Conservationist,
Grand Junction, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

GUNNISON



UNCOMPAGRE



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Taylor	106.2	75.0	29.1	61.0

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE.	DEP.	WINTER AVE.	DEP.
Gunnison	8.28	+ 3.83	.60	-.06

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
King	8.0	5.5	2.6	5.4
Maroon	8.0	7.0	0.1	2.6
Mineral Creek	7.0	4.9	4.1	4.8
Placita	8.0	6.4	0.1	2.1

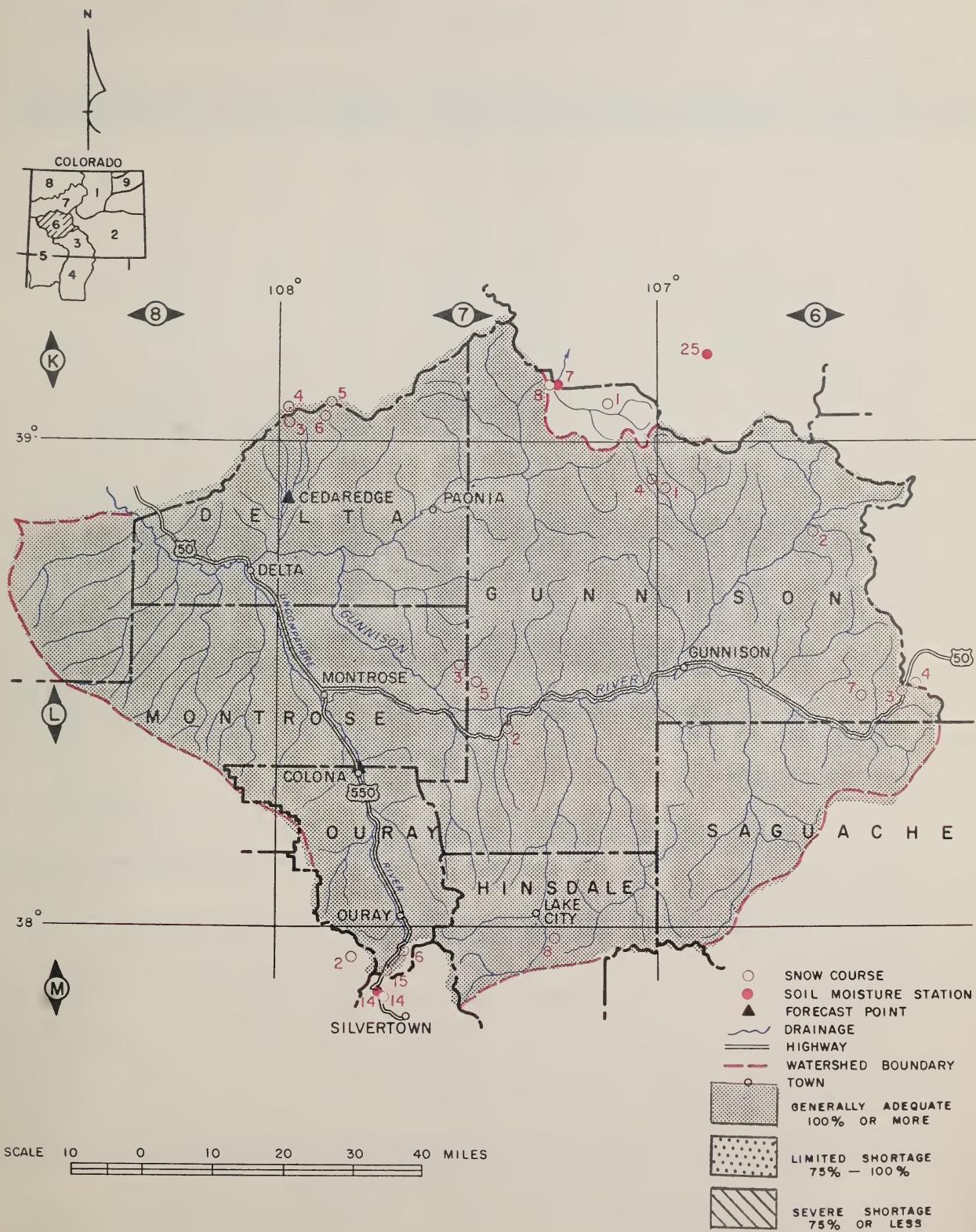
STREAMFLOW FORECAST

APRIL THROUGH SEPTEMBER

STREAM AND STATION	FORECAST APRIL SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
No Forecast issued until March 1.			

ALL PROFILES 4 FEET DEEP

GUNNISON RIVER WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
GUNNISON RIVER						
Alexander Lake (A)	7K3	1/25	68	19.2	3.5	13.4
Black Mesa	7L5	NS	--	--	--	--
Blue Mesa	7L2	NS	--	--	--	--
Cochetopa Pass	6L6	1/25	23	4.0	4.8	3.5*
Crested Butte	6L1	1/29	44	9.3	5.6	9.4
Keystone	7L3	1/30	64	21.3	--	--
Lake City	7M8	NS	--	--	--	--
Long Draw	7L4	NS	--	--	3.0	--
Mesa Lakes (B)	7K4	1/28	40	11.7	4.5	10.2
Monarch Pass (B)	6L4	1/29	56	15.2	10.3	10.8
McClure Pass (A)	7K8	1/25	67	22.1	5.3	11.4*
Mineral Creek (B)	7M14	1/30	45	12.8	4.6	7.4*
North Lost Trail (A) (B)	7K1	1/25	63	15.9	4.9	9.2
Park Cone	6L2	1/26	50	8.9	3.5	7.0
Park Reservoir (A)	7K6	1/25	67	20.8	6.5	15.6
Porphyry Creek	6L3	1/29	57	15.6	9.0	10.0
Trickle Divide (B) (A)	7K5	1/25	71	22.0	7.5	17.0
Tomichi	6L7	1/29	42	10.5	4.9	--
UNCOMPAGRE RIVER						
Ironton Park	7M6	1/29	34	9.5	5.0	7.4
Lizard Head	7M3	1/30	41	11.8	5.4	9.9*
Red Mountain Pass (B)	7M15	1/30	76	24.5	12.2	14.9*
Telluride	7M2	1/26	21	4.5	3.9	5.1
Trout Lake	7M9	1/26	38	9.0	4.6	10.0*

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

**COLORADO RIVER WATERSHED IN COLORADO
as of**

FEBRUARY 1, 1962

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO

SNOW COVER

PROSPECTS FOR A GOOD WATER SUPPLY LOOK BETTER THIS YEAR THAN ANY SINCE 1957. SNOW COVER IS RUNNING ABOUT 140 PERCENT OF NORMAL. HIGH ELEVATION SNOW COVER ON THE ROARING FORK AND PLATEAU CREEK IS EVEN HIGHER THAN 140%. MEDIUM TO LOW SNOW IS RUNNING JUST ABOVE NORMAL, HOWEVER, THIS SNOW EXTENDS TO MUCH LOWER ELEVATIONS THAN NORMAL. SNOWFALL STARTED MUCH EARLIER THAN IS USUAL THIS YEAR AND HAS NOT LET UP. CONTINUED SNOWS WILL VIRTUALLY ASSURE EXCELLENT WATER SUPPLIES FOR WATER USERS ON THE COLORADO RIVER IN COLORADO.

SOIL MOISTURE

SOIL MOISTURE IS ALSO A BRIGHT PICTURE. ALL SOIL MOISTURE STATIONS INDICATE MORE MOISTURE THAN IS USUAL FOR THIS DATE. THERE IS FAR MORE MOISTURE THAN LAST YEAR AT THIS TIME. LATE SPRING AND FALL PRECIPITATION WAS CONSIDERABLY BETTER THAN NORMAL. FALL RIVER FLOW WAS ABOVE NORMAL BECAUSE OF THESE RAINS. SOILS WERE SATURATED WHEN SNOWFALL STARTED. THE EARLY SNOWFALL KEPT THE SOIL IN GOOD CONDITION.

THE POSSIBILITY OF GOOD SUMMER RUNOFF IS INCREASED BY THIS EXCELLENT SOIL MOISTURE.

RESERVOIR STORAGE

RESERVOIRS ON THE UPPER COLORADO CONTAIN MORE CARRY-OVER STORAGE THAN LAST YEAR AND ABOUT 165% MORE THAN IS NORMAL AT THIS TIME OF YEAR.

GRANBY WHICH IS A PART OF THE BIG THOMPSON PROJECT CONTAINS MORE WATER THAN ANYTIME SINCE 1954.

NUMERICAL FORECASTS ARE NOT MADE UNTIL MARCH 1.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

E. A. Nicholson, Area Conservationist
Grand Junction, Colorado
M. H. Weaver, Area Conservationist,
Glenwood Springs, Colorado

SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
COLORADO RIVER (UPPER)						
Arrow	5K6	1/29	40	9.6	3.9	6.5
Berthoud Pass	5K3	1/29	44	12.9	6.1	8.8
Berthoud Summit	5K14	2/1	48	13.5	7.0	12.0*
Blue River	6K21	1/30	31	7.5	2.7	--
Cooper Hill	6K23	1/28	42	8.9	4.7	--
Fiddlers Gulch	6K5	Est.	60	16.0	6.1	10.0
Fremont Pass	6K8	1/31	54	15.0	6.7	10.3
Frisco	6K13	1/30	29	7.1	1.8	5.7*
Glen Mar Ranch	6K20	1/26	33	7.5	3.7	5.8*
Gore Pass	6J11	1/31	38	10.9	3.7	8.5*
Granby	5J16	1/31	26	5.7	2.3	4.6*
Grand Lake	5J19	1/30	33	6.2	1.5	5.6*
Grizzly Peak	5K9	1/29	54	15.0	6.1	11.3
Hoosier Pass (B)	6K1	1/30	41	10.8	6.0	7.2
Jones Pass	5K21	1/26	47	12.2	5.4	--
Lake Irene	5J10	NS	--	--	5.5	13.6
Lapland	5K7	NS	--	--	NS	--
Lulu	5J7	NS	--	--	NS	--
Lynx Pass	6K6	1/31	44	12.4	4.3	7.7
McKenzie Gulch	6K28	NS	--	--	--	--
M. Fork Camp Ground	5K4	1/26	36	8.2	3.9	6.2
Milner Pass	5J24	NS	--	--	NS	9.0*
Monarch Lake	5J14	NS	--	--	--	7.6*
North Inlet Grand Lake	5J9	Est.	35	6.5	NS	6.1
Pando	6K19	1/30	33	8.8	3.2	6.2*
Phantom Valley	5J4	1/29	35	8.9	3.9	6.6
Ranch Creek	5K18	1/29	32	6.0	1.9	--
Shrine Pass	6K9	1/30	59	16.0	5.2	10.8
Snake River	5K16	1/29	30	7.0	2.3	6.1*
Summit Ranch	6K14	Est.	35	7.9	2.6	5.3*
Tennessee Pass	6K2	1/28	36	8.5	3.3	6.9
Vail Pass	6K15	1/30	55	16.0	4.8	11.1*
Vasquez Creek	5K19	1/29	42	11.0	4.5	-- *
Willow Creek Pass	6J5	1/31	41	11.0	4.1	7.8
ROARING FORK RIVER						
Aspen	7J22	1/27	55	13.7	4.8	--
Independence Pass Tunnel	6K4	1/26	65	17.1	4.3	10.6
Ivanhoe	6K10	1/28	52	17.5	5.6	10.0*
Lift	7K27	1/27	68	15.6	8.1	--
McClure Pass (A)	7K8	1/25	67	22.1	5.3	11.4*
Nast	6K6	1/29	25	4.8	NS	4.4*
North Lost Trail (A)	7K1	1/25	63	15.9	4.9	9.2
PLATEAU CREEK						
Alexander (A) (B)	7K3	1/25	68	19.2	3.5	13.4
Mesa Lakes	7K4	1/28	40	11.7	4.5	10.2
Park Reservoir (A) (B)	7K6	1/25	67	20.8	6.5	15.6
Trickle Divide (A)	7K5	1/25	71	22.0	7.5	17.0

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

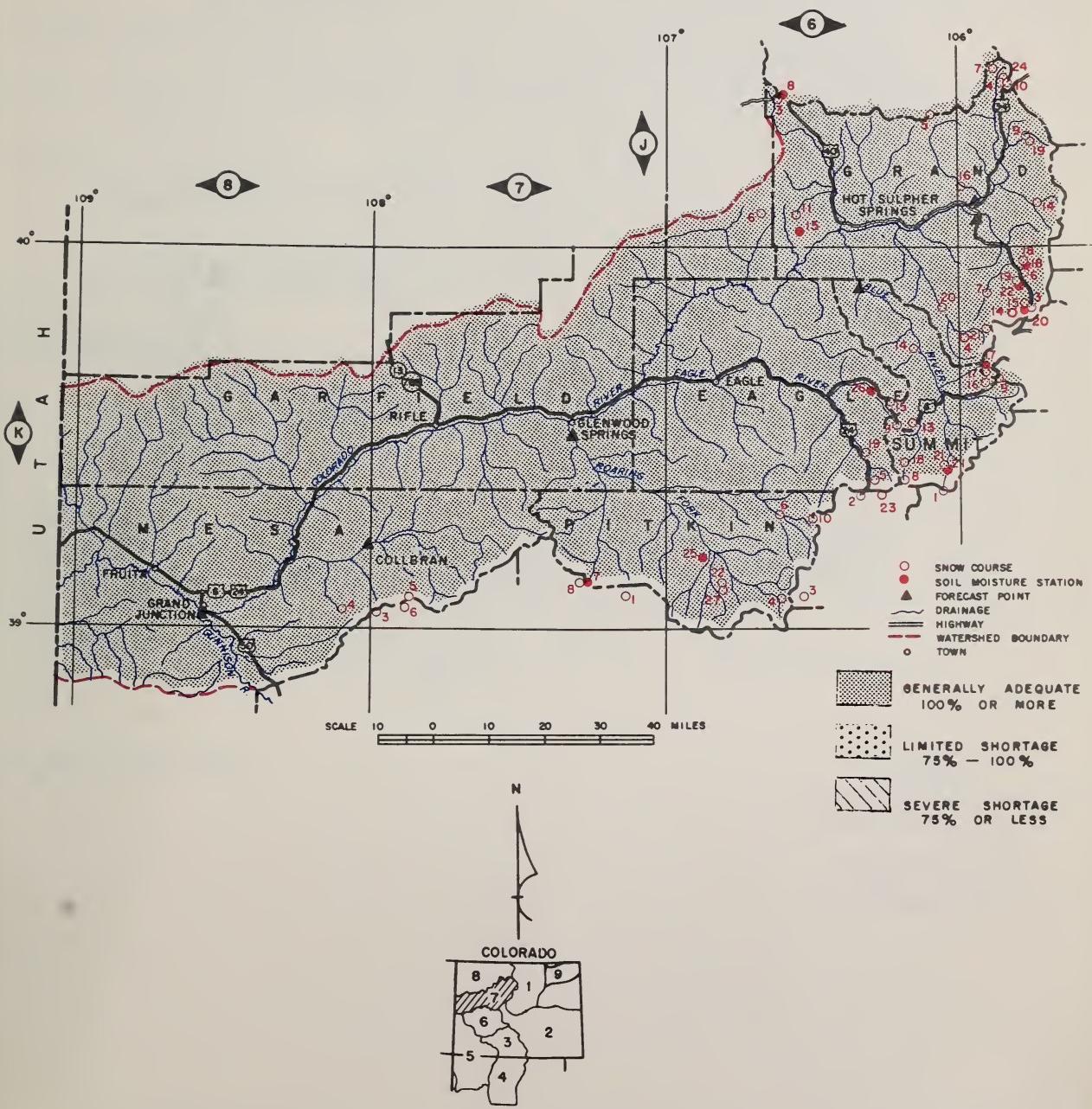
Jack N. Washichek and Don W. McAndrew

Soil Conservation Service

Colorado State University

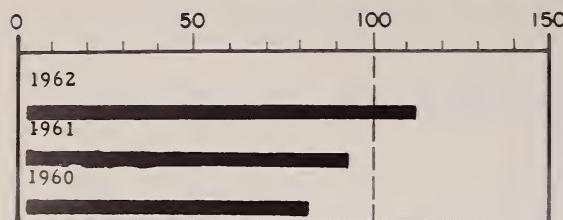
Ft. Collins, Colorado

COLORADO RIVER WATERSHED IN COLORADO

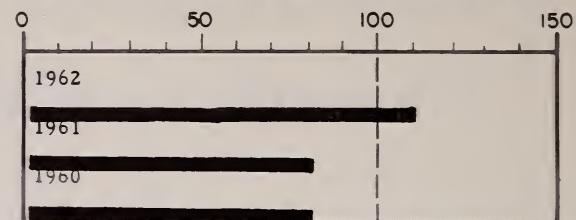


WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

UPPER COLORADO ABOVE GLENWOOD SPRINGS



LOWER COLORADO BELOW GLENWOOD SPRINGS



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Granby *	465.5	370.3	268.8	212.9
Green Mt.	146.9	105.6	74.9	76.7

* Shorter Period
MEASURED FIRST OF MONTH

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE.	DEP.	WINTER AVE.	DEP.
Upper Colorado	9.86	+4.59	1.12	-.26
Lower Colorado	8.26	+3.61	1.01	+.06

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Berthoud Pass	8.0	6.7	5.4	4.0
Blue River	7.0	5.6	1.3	3.1
Gore	7.0	4.8	0.2	1.6
Maroon	8.0	7.0	0.1	2.6
Muddy Pass	8.0	7.4	0.6	2.7
Placita	8.0	6.4	0.1	2.1
Ranch Creek	7.0	5.5	3.9	4.4
Vail Pass	8.0	7.0	0.2	2.8
Vasquez	7.0	--	5.4	3.9

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST

APRIL THROUGH SEPTEMBER.

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
No Forecast until March 1.			

- (4) Observed flow plus diversions by Adams tunnel and Grand River ditch plus change in storage in Granby Reservoir.
- (5) Observed flow plus the changes as indicated in (4) plus Moffat Ditch.
- (6) Observed flow plus diversion through Twin Lakes tunnel.

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Ft. Collins, Colorado

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OFFICIAL BUSINESS

**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
YAMPA, WHITE, & NORTH PLATTE
RIVERS WATERSHEDS IN COLORADO**

**as of
FEBRUARY 1, 1962**

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER

SNOW COVER ON THE NORTH PLATTE, YAMPA AND WHITE RIVER BASINS IS
CONSIDERABLY BETTER THAN NORMAL. THE NORTH PLATTE HAS A SLIGHT
EDGE WITH 150% OF NORMAL WHILE THE YAMPA HAS 130% AND THE WHITE
138% OF NORMAL.

THIS IS DIRECT CONTRAST TO LAST YEAR WHEN SNOW COVER WAS MUCH
BELOW NORMAL. IF THIS TREND CONTINUES NEXT SUMMER SHOULD SEE
MORE THAN ADEQUATE SUPPLIES. GOOD WATER SUPPLIES ARE VIRTUALLY
ASSURED ON THESE BASINS IN COLORADO.

SOIL MOISTURE

SOIL MOISTURE IS THE BEST ON RECORD. ALL STATIONS INDICATE THE
SOILS ARE NEAR SATURATION. THIS WILL TEND TO INCREASE THE
SPRING RUNOFF. REPORTS INDICATE ALL VALLEY SOILS ARE IN
EXCELLENT CONDITIONS.

RESERVOIRS

RESERVOIRS ON THE LOWER NORTH PLATTE IN WYOMING AND NEBRASKA
ARE SADLY DEPLETED, BUT IF THE PRESENT TREND IN SNOW PACK
CONTINUES, DEPLETION OF THESE RESERVOIRS SHOULD CEASE.

NUMERICAL FORECASTS ARE NOT MADE UNTIL MARCH 1.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

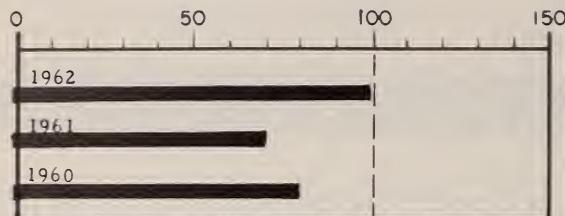
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

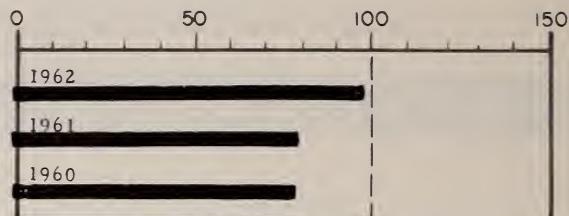
M. H. Weaver, Area Conservationist,
Glenwood Springs, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

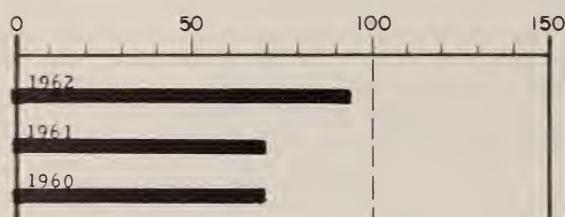
YAMPA



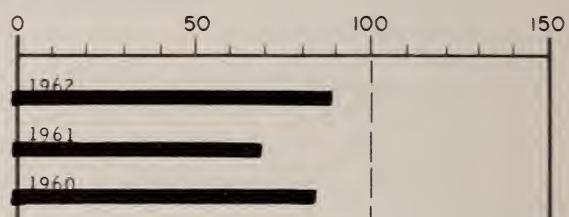
WHITE



LARAMIE



NORTH PLATTE



SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Hahn's Peak	8.0	8.0	5.9	---
Laramie Road	7.0	6.0	0.8	2.6
Muddy Pass	8.0	7.4	0.6	2.7
Two Mile	8.0	5.8	0.5	2.6
Willow Pass	7.0	7.0	1.1	3.9

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST APRIL THROUGH SEPTEMBER

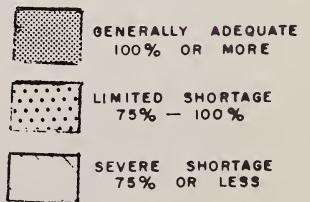
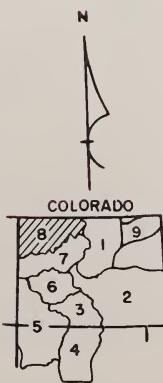
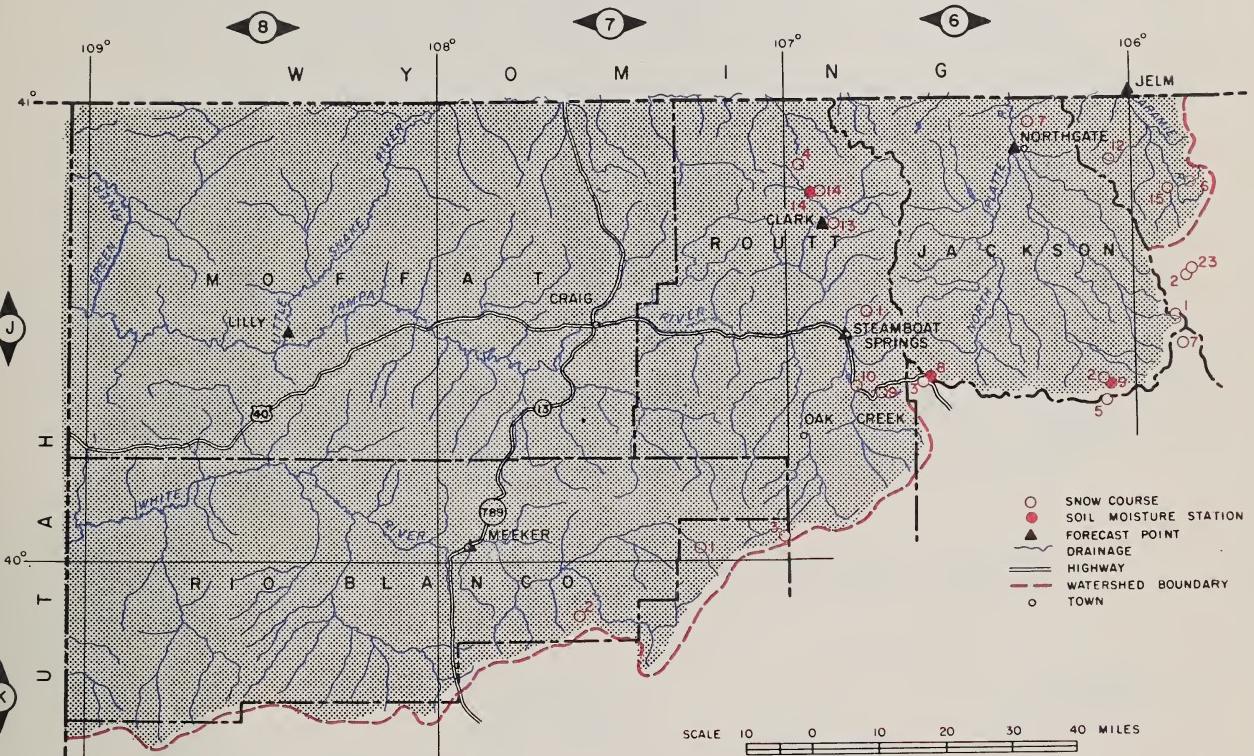
STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
No Forecast until March 1.			

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE. DEP.		WINTER AVE. DEP.	
	Dec.	Dec.	Dec.	Dec.
North Platte	6.08	+3.07	.27	-.10
White	8.33	+3.81	1.01	+.05
Yampa	9.93	+4.14	1.98	+.14

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

YAMPA, WHITE, & NORTH PLATTE RIVERS WATERSHEDS IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
NORTH PLATTE RIVER						
Cameron Pass (A)	5J1	2/1	63	21.2	7.8	13.6
Columbine Lodge	6J3	1/29	58	18.4	10.2	15.3
Deadman Hill (A) (B)	5J6	2/1	55	16.8	6.1	8.8
McIntyre (B)	5J15	NS	--	--	NS	
Northgate	6J7	1/29	30	6.8	2.3	3.9*
Park View	6J2	1/31	33	7.2	3.7	5.9
Roach (A) (B)	6J12	NS	--	--	4.1	11.2
Willow Creek Pass (B)	6J5	1/31	41	11.0	4.1	7.8
YAMPA RIVER						
Bear River	7J3	NS	--	--	NS	--
Clark (A)	6J13	1/31	40	10.0	4.7	--
Columbine Lodge (B)	6J3	1/29	58	18.4	10.2	15.3
Dry Lake (A)	6J1	1/31	49	16.7	6.8	13.2
Elk River (A)	6J4	1/31	47	15.1	6.7	10.8
Hahn's Peak	6J14	NS	--	--	NS	--
Lynx Pass (B)	6J6	1/31	44	12.4	4.3	7.7
Rabbit Ears	6J9	1/29	61	19.1	10.5	17.9*
Yampa View	6J10	1/29	40	12.3	6.0	8.9*
WHITE RIVER						
Burro Mountain (A)	7K2	1/25	54	16.2	5.4	10.3
Rio Blanco	7J1	1/30	40	11.6	5.2	9.9

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

Jack N. Washichek and Don W. McAndrew
Soil Conservation Service
Colorado State University
Ft. Collins, Colorado

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SOIL CONSERVATION SERVICE

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OFFICIAL BUSINESS

WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE

LOWER SOUTH PLATTE RIVER WATERSHED IN COLORADO

as of
FEBRUARY 1, 1962

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO

SNOW COVER

SNOW PACK OVER THE ENTIRE BASIN IS ABOVE NORMAL. NOT ONLY IS SNOW COVER EXCELLENT IN THE MOUNTAINS, BUT MOST OF THE PLAINS AREA HAS BEEN COVERED WITH FROM A FEW INCHES TO A FOOT OR MORE ALL MONTH. SNOW COVER IN THE MOUNTAIN AREAS STANDS AT ABOUT 130% OF THE 15-YEAR AVERAGE.

IF THIS TREND CONTINUES, EXCELLENT WATER SUPPLIES CAN BE ANTICIPATED THIS YEAR.

LESS THAN HALF OF THE SNOW SEASON HAS PASSED. SNOWFALL MUST CONTINUE TO BE GOOD TO INSURE A GOOD WATER SUPPLY.

SOIL MOISTURE

SOIL MOISTURE AT THE HIGH ELEVATIONS IS INDICATING NEAR A RECORD HIGH. HEAVY PRECIPITATION DURING THE LATE SUMMER AND FALL FILLED THE SOIL MANTLE AND SUBSEQUENT EARLY SNOWS HAVE KEPT THE SOILS SATURATED.

SOILS IN THE IRRIGATED AREAS ARE ALSO IN VERY GOOD CONDITION. THIS CONDITION COULD ADD MATERIALLY TO THE ANTICIPATED RUNOFF THIS SPRING.

RESERVOIR STORAGE

RESERVOIR STORAGE IS 135% OF NORMAL AS OF FEBRUARY 1. THIS STORAGE IS ALSO BETTER THAN LAST YEAR AT THIS TIME. LATE SPRING AND FALL PRECIPITATION BROUGHT THE RIVER FLOW UP SUBSTANTIALLY ABOVE NORMAL. THERE IS A GOOD CHANCE THAT MOST OF THE RESERVOIRS ON THE LOWER SOUTH PLATTE WILL BE FULL PRIOR TO SPRING RUNOFF. THIS WILL BE AN EXCELLENT SUPPLEMENT TO RIVER RUNOFF.

STREAMFLOW

STREAMFLOW SHOULD BE CONSIDERABLY ABOVE NORMAL. MOST OF THE UPSTREAM RESERVOIRS ARE FULL OR NEARLY SO. CONSIDERABLE WATER WILL BE PASSED FOR DOWNSTREAM USE.

NUMERICAL FORECASTS ARE NOT MADE UNTIL MARCH 1.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

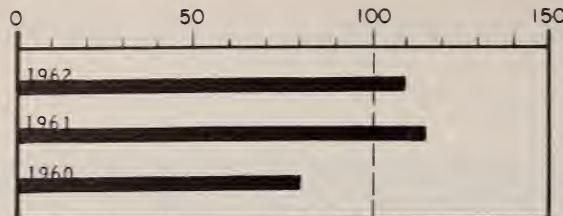
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist
Colorado

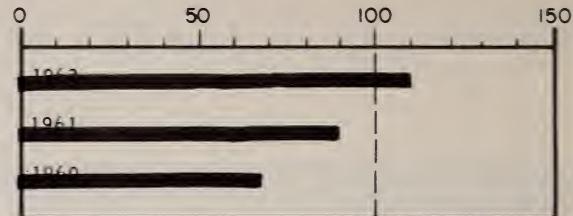
Wallace L. Bruce, Area Conservationist
Sterling, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

UPPER SOUTH PLATTE



LOWER SOUTH PLATTE



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Carter	108.9	80.6	63.2	69.2
Cheeseman	79.0	79.1	60.9	47.9
Eleven Mile	81.9	97.8	97.8	69.2
Empire	37.7	21.7	27.6	21.1
Horsetooth	143.5	121.7	89.2	65.4
Jackson	35.4	27.1	27.5	26.8
Prewitt	32.8	17.0	3.0	17.3
Point of Rocks	70.0	66.4	4.6	43.3
Riverside	57.5	45.1	45.7	37.7
Julesburg	28.2	18.4	20.5	20.5

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE. DEP.		WINTER AVE. DEC. ^{EP.}	
	Upper So. Pl.	Lower So. Pl.	Upper So. Pl.	Lower So. Pl.
Upper So. Pl.	8.07	+3.71	.29	-.29
Lower So. Pl.	7.15	+2.52	.21	-.18

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alpine Camp	7.0	4.2	0.5	1.7
Beaver Dam	6.0	3.3	0.7	1.5
Feather	6.0	2.9	0.0	1.3
Guard Station	7.0	4.6	0.7	1.4
Hoop Creek	6.0	5.4	0.5	2.4
Hoosier Pass	7.0	6.9	0.9	2.9
Kenosha Pass	7.0	4.2	0.4	--
Laramie Road	7.0	6.0	0.8	2.6
Two Mile	8.0	5.8	0.5	3.3

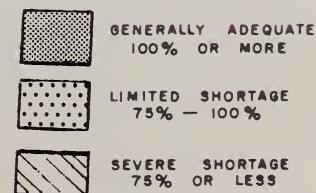
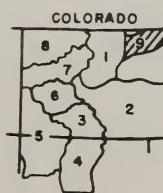
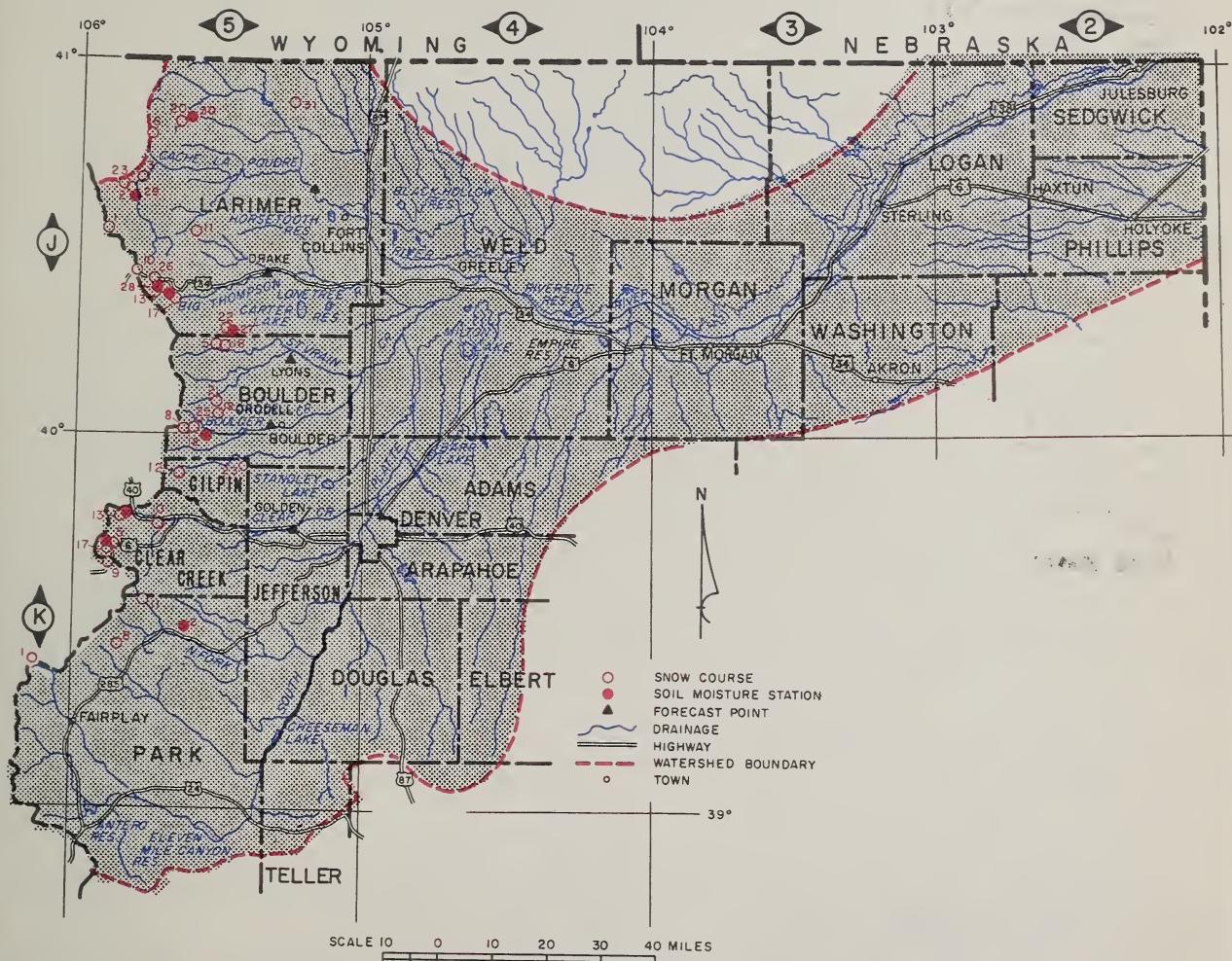
ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST

APRIL THROUGH SEPTEMBER

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
No Forecasts until March 1.			

LOWER SOUTH PLATTE RIVER WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES) LAST YEAR	AVERAGE 1943 - 57
MISSOURI RIVER AND TRIBUTARIES						
Baltimore	5K23	2/1	28	7.7	4.2	--
Berthoud Falls	5K13	2/1	43	12.0	3.9	9.2
Big South	5J3	1/28	11	2.2	1.4	1.8
Boulder Falls	5J25	1/30	36	4.9	6.2	8.0*
Cameron Pass (A)	5J1	2/1	63	21.2	7.8	13.6
Chambers Lake	5J2	1/28	27	7.4	3.1	5.6
Copeland Lake	5J18	1/29	17	4.0	2.7	4.0*
Deadman Hill (A)	5J6	2/1	55	16.8	6.1	8.8*
Deer Ridge	5J17	1/29	24	5.9	1.7	3.7*
Empire	5K10	2/1	27	5.9	4.1	4.5*
Geneva Park	5K11	NS	--	--	--	3.9*
Grizzly Peak (B)	5K9	1/29	54	15.0	6.1	11.3
Hidden Valley	5J13	1/28	41	10.1	5.3	7.2
Hoosier Pass	6K1	1/30	41	10.8	6.0	7.2
Hour Glass Lake	5J11	Est.	22	5.6	NS	4.1*
Jefferson Creek	5K8	NS	--	--	NS	5.6
Lake Irene	5J10	Est.	65	22.2	5.5	13.6
Long's Peak	5J22	1/27	34	7.5	4.9	7.8*
Lost Lake	5J23	1/28	36	10.2	5.3	7.4*
Loveland Pass	5K5	1/31	44	13.2	6.2	9.4
Loveland Lift No. 1	5K24	1/29	73	22.3	10.3	--
Pine Creek	5J31	1/30	13	2.3	2.2	--
Red Feather	5J20	1/29	25	7.1	3.2	5.1*
Two Mile	5J26	1/28	56	15.0	5.4	7.8*
University Camp	5J8	1/30	47	10.5	9.4	12.7
Ward	5J21	1/29	21	4.9	4.1	3.7*
Ward Basin	5J5	Est.	45	13.6	4.3	9.0

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

Jack N. Washichek and Don W. McAndrew

Soil Conservation Service

Colorado State University

Ft. Collins, Colorado

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SOIL CONSERVATION SERVICE

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LIST OF COOPERATORS

The following organizations cooperate in snow surveys for the Colorado, Platte, Arkansas and Rio Grande watersheds. Many other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

STATE

Colorado State Engineer
New Mexico State Engineer
Nebraska State Engineer
Colorado Experiment Station
Rocky Mountain Forest and Range Experiment Station

FEDERAL

Department of Agriculture

Forest Service
Soil Conservation Service

Department of Interior

Bureau of Reclamation
Geological Survey
National Park Service
Indian Service

Department of Commerce

Weather Bureau

War Department

Army Engineer Corps

Atomic Energy Commission

PUBLIC UTILITIES

Colorado Public Service Company
Western Colorado Power Company
Public Service Company of New Mexico

MUNICIPALITIES

City of Denver
City of Boulder

WATER USERS ORGANIZATIONS

Arkansas Valley Ditch Association
Colorado River Water Conservation District

IRRIGATION PROJECTS

Farmers Reservoir and Irrigation Company
San Luis Valley Irrigation District
Santa Maria Reservoir Company
Costilla Land Company
Uncompahgre Valley Water Users' Association
Twin Lakes Reservoir and Canal Company

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FEDERAL - STATE - PRIVATE
COOPERATIVE SNOW SURVEYS

Furnishes the basic data
necessary for forecasting
water supply for irrigation,
domestic and municipal water
supply, hydro-electric power
generation, navigation,
mining and industry

*"The Conservation of Water begins
with the Snow Survey"*

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**WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
COLORADO and NEW MEXICO**

UNITED STATES DEPARTMENT of AGRICULTURE--SOIL CONSERVATION SERVICE
and
COLORADO AGRICULTURAL EXPERIMENT STATION,
STATE ENGINEER of COLORADO
and STATE ENGINEER of NEW MEXICO

Data included in this report were obtained by the agencies named above in cooperation with the Bureau of Reclamation, U.S. Forest Service, National Park Service and other Federal, State, and private organizations.

AS OF
MAR. 1, 1962

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Cooperative Snow Survey and Water Supply Forecast Reports:

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Fortunately, most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from fore-knowledge of the runoff.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, about 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1400 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

By relating snow survey measurements taken over a period of years to spring-summer runoff during the same period, relationships have been developed which make it possible to forecast seasonal runoff several months in advance of occurrence. In order to make a forecast, once a forecast relationship has been developed, the maximum snow water content at previously selected key snow courses is usually entered in the forecast relationship. More accurate forecasts are often obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast relationships.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, streamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions.

PUBLISHED BY SOIL CONSERVATION SERVICE

<u>REPORTS</u>	<u>ISSUED</u>	<u>LOCATION</u>	<u>COOPERATING WITH</u>
RIVER BASINS			
COLORADO AND STATE OF UTAH			
COLORADO	MONTHLY (JAN.-JUNE)	SALT LAKE CITY, UTAH	UTAH STATE ENGINEER AND OTHER AGENCIES
UTAH	MONTHLY (JAN.-JUNE)	SALT LAKE CITY, UTAH	UTAH STATE ENGINEER AND OTHER AGENCIES
COLUMBIA			
COLUMBIA	MONTHLY (JAN.-MAY)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
UPPER MISSOURI AND STATE			
UPPER MISSOURI	MONTHLY (FEB.-JUNE)	BOZEMAN, MONTANA	MONT. AGR. EXP. STATION
MONTANA	MONTHLY (FEB.-JUNE)	BOZEMAN, MONTANA	MONT. AGR. EXP. STATION
WEST-WIDE			
WEST-WIDE	OCT. 1, APR. 1, MAY 1	PORTLAND, OREGON	ALL COOPERATORS
STATES			
ALASKA			
ALASKA	MONTHLY (MAR.-MAY)	PALMER, ALASKA	ALASKA S.C.D.
ARIZONA			
ARIZONA	SEMI-MONTHLY (JAN. 15 - APR. 1)	PHOENIX, ARIZONA	SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION
COLORADO AND NEW MEXICO			
COLORADO	MONTHLY (FEB.-MAY)	FORT COLLINS, COLORADO	COLO. AGR. EXP. STATION COLO. STATE ENGINEER N. MEX. STATE ENGINEER
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FEDERAL - STATE COOPERATIVE
SNOW SURVEYS AND WATER SUPPLY FORECASTS

for

COLORADO RIVER, PLATTE RIVER
ARKANSAS RIVER AND RIO GRANDE
DRAINAGE BASINS

Issued

March 1, 1962

Report Prepared By
Jack N. Washichek, Snow Survey Supervisor
and
Don W. McAndrew, Assistant Snow Survey Supervisor
Fort Collins, Colorado

United States Department of Agriculture
Soil Conservation Service
and
Colorado Agricultural Experiment Station
Fort Collins, Colorado
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State Engineer of Colorado
Denver, Colorado
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General Series Paper No. 766
Colorado Agricultural Experiment Station

WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO

as of

MARCH 1, 1962

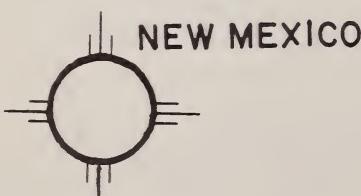


*
* MANY PARTS OF COLORADO PRESENTLY HAVE A SNOW *
* PACK THAT IS APPROACHING A MAXIMUM OF RECORD. *
* SNOW COVER IN ALL THE MOUNTAIN AREAS OF COLORADO *
* AND NEW MEXICO IS AVERAGE OR ABOVE. ON THE *
* BASIS OF THE FOLLOWING SNOW DATA THE WATER *
* SUPPLY OUTLOOK WILL BE NORMAL TO MUCH ABOVE *
* NORMAL FOR THE TWO STATES THIS SEASON. *

* *



Colorado should enjoy one of the best water years it has had in recent history. To date, we have had much above normal precipitation. Watershed soils under the mountain snow pack were almost completely "recharged" by the above normal fall and early winter rains. This above normal precipitation has continued through into the winter months leaving a near record snow pack in many areas of the State. Reservoir storage is better than last year, and many reservoirs are full or expected to fill before the spring season.



Short water supplies have almost become a way of life for the area of New Mexico served by the Rio Grande and its tributaries. This year, however, we can expect some relief from this situation. If the remaining one-fourth of the snow season offers normal or above precipitation, this area will have a better water supply than any time in recent years.

Areas served by the San Juan, Pecos and Canadian Rivers are in excellent condition, and are assured of a good water supply this season.

WATER SUPPLY OUTLOOK

THE MAP ON THIS PAGE INDICATES THE MOST PROBABLE WATER SUPPLY AS OF THE DATE OF THIS REPORT. ESTIMATES ASSUME AVERAGE CONDITIONS OF SNOW FALL, PRECIPITATION AND OTHER FACTORS FROM THIS DATE TO THE END OF THE FORECAST PERIOD. AS THE SEASON PROGRESSES ACCURACY OF ESTIMATES IMPROVE. IN ADDITION TO EXPECTED STREAM-FLOW, RESERVOIR STORAGE, SOIL MOISTURE IN IRRIGATED AREAS, AND OTHER FACTORS ARE CONSIDERED IN ESTIMATING WATER SUPPLY. ESTIMATES APPLY TO IRRIGATED AREAS ALONG THE MAIN STREAMS AND MAY NOT INDICATE CONDITIONS ON SMALL TRIBUTARIES.

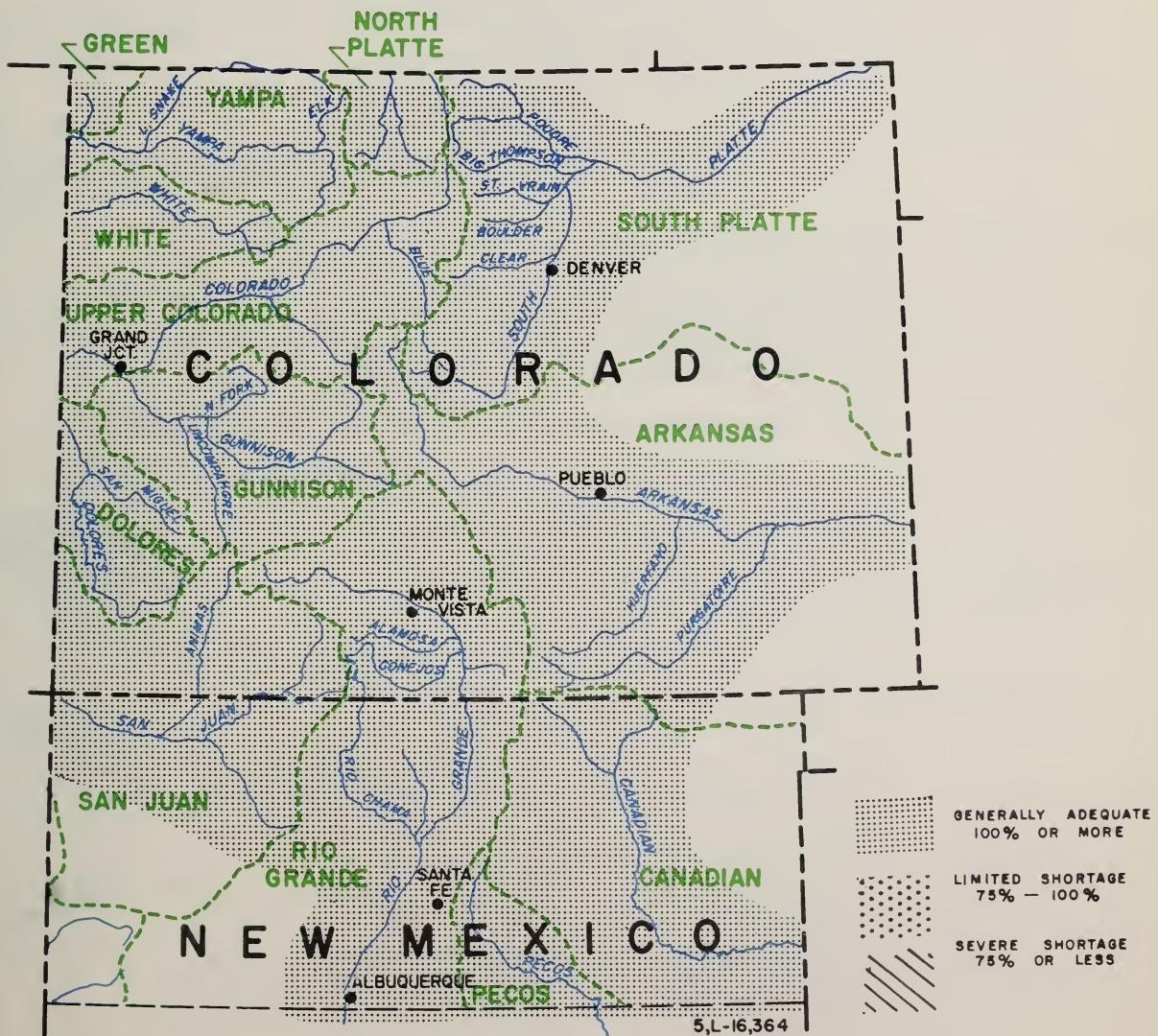


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Describes water supply conditions in Fort Collins, Big Thompson, Longmont, Boulder Valley, Jefferson, Teller-Park, Douglas County, Morgan, Kiowa, West Arapahoe, West Adams, East Adams, Platte Valley, Southeast Weld, and West Greeley Soil Conservation Districts.

WATERSHED II - ARKANSAS RIVER WATERSHED

Describes water supply conditions in Lake County, Upper Arkansas, Fremont, Custer County Divide, Fountain Valley, Black Squirrel, Horse-Rush Creek, Central Colorado, Turkey Creek, Pueblo, Bessemer, Olney Boone, Cheyenne, Upper Huerfano, Stonewall, Spanish Peaks, Purgatoire, Branson Trinchera, Western Baca County, Southeastern Baca County, Two Buttes, Bent, Timpas, Northeast Prowers, Prowers, West Otero, East Otero, and Big Sandy Soil Conservation Districts.

WATERSHED III - RIO GRANDE WATERSHED (COLORADO)

Describes water supply conditions in Rio Grande, Center, Mosca, Hooper, Mt. Blanca, Sanches, and Culebra Soil Conservation Districts.

WATERSHED IV - RIO GRANDE WATERSHED (NEW MEXICO)

Describes water supply conditions in Lower Cebolla, Abiquiu-Vallecitos, Eastern Taos, Lindrith, Coyote-Canones, Espanola Valley, Pojoaque, Jemez, Santa Fe-Sandoval, Tijeras, Cuba, and Edgewood Soil Conservation Districts.

WATERSHED V - DOLORES, SAN JUAN, AND ANIMAS RIVERS WATERSHED

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WATERSHED VI - GUNNISON RIVER WATERSHED

Describes water supply conditions in Delta, Gunnison, Cimarron, Shavano, and Uncompahgre Soil Conservation Districts.

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Describes water supply conditions in DeBeque, Lower Grand Valley, Bookcliff, Eagle County, Middle Park, Glade Park, Upper Grand Valley, Plateau Valley, South Side, and Mt. Sopris Soil Conservation Districts.

WATERSHED VIII - YAMPA, WHITE AND NORTH PLATTE RIVERS WATERSHED

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WATERSHED IX - LOWER SOUTH PLATTE RIVER WATERSHED

Describes water supply conditions in Sedgwick, South Platte, Haxton, Peetz, Padroni, Morgan Rock Creek and Yuma Soil Conservation Districts.

**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

SOUTH PLATTE RIVER WATERSHED IN COLORADO

as of
March 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER



SOIL MOISTURE

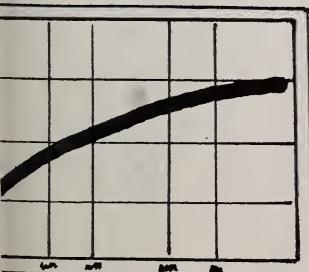


RESERVOIR STORAGE

Water held in storage on the upper South Platte River and tributaries is better than last year and about 140% of normal. Many reservoirs are full or expected to fill before the start of the irrigation season.

This storage will be an excellent supplement to the anticipated spring runoffs.

EXPECTED STREAMFLOW



The South Platte River and all its tributaries will flow better than average this season. This above average streamflow coupled with excellent reservoir storage, and above normal soil moisture will assure water users of excellent supplies this summer season.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

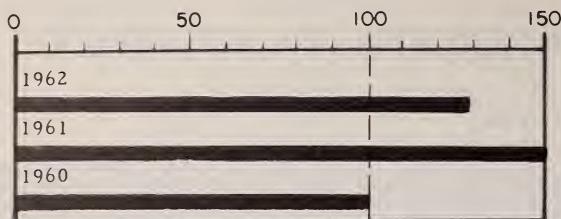
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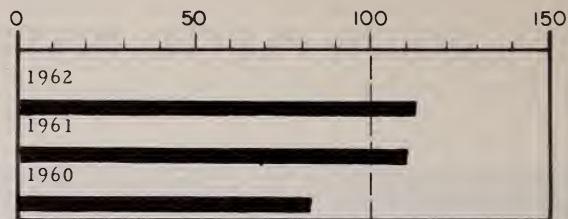
R. G. Wilson, Area Conservationist,
Littleton, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

CACHE LA POUDRE - BOULDER



CLEAR CREEK - UPPER SOUTH PLATTE



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Antero	33.0	15.7	15.5	14.2
Barr Lake	32.2	22.0	25.8	19.9
Black Hollow	8.0	4.8	2.2	3.2
Boyd Lake	44.0	4.1	34.6	18.1
Cache La Poudre	9.5	8.4	5.3	6.2
Carter Lake *	108.9	93.1	74.1	63.7
Chambers Lake	8.8	7.3	1.7	1.7
Cheeseman	79.0	78.5	59.7	47.6
Cobb Lake	34.3	20.4	12.8	5.5
Eleven Mile	81.9	97.8	97.8	69.3
Fossil Creek	11.6	7.6	7.6	6.6
Gross	43.1	34.8	17.4	--
Halligan	6.4	4.4	3.4	1.9
Horsetooth *	143.5	128.2	98.8	88.0
Lake Loveland	14.3	7.9	7.7	5.8
Lone Tree	9.2	7.8	5.0	5.6
Mariano	5.4	4.8	4.0	2.2
Marshall	10.3	6.8	1.9	1.6
Marston	18.9	15.5	5.3	14.2
Milton	24.4	14.0	15.3	9.7
Standley	18.5	14.3	8.8	9.6
Terry Lake	8.2	5.9	4.2	4.3
Union	12.7	Delayed	8.5	6.7
Windsor	18.6	First Month	9.1	8.1

MEASURED FIRST MONTH

* Shorter Period.

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER		WINTER	
	AVE.	DEP.	AVE.	DEP.
Upper South Platte	8.07	+3.71	1.42	+.39

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alpine Camp	7.0	4.2	0.5	1.7
Beaver Dam	6.0	3.3	0.7	1.5
Feather	6.0	2.9	0.0	1.3
Guard Station	7.0	4.6	0.7	1.4
Hoop Creek	6.0	5.4	0.5	2.4
Hoosier Pass	7.0	6.9	0.9	2.9
Kenosha Pass	7.0	4.2	0.4	—
Laramie Road	7.0	6.0	0.8	2.6
Two Mile	8.0	5.8	0.5	3.3

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST

APRIL THROUGH SEPTEMBER

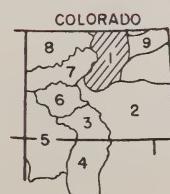
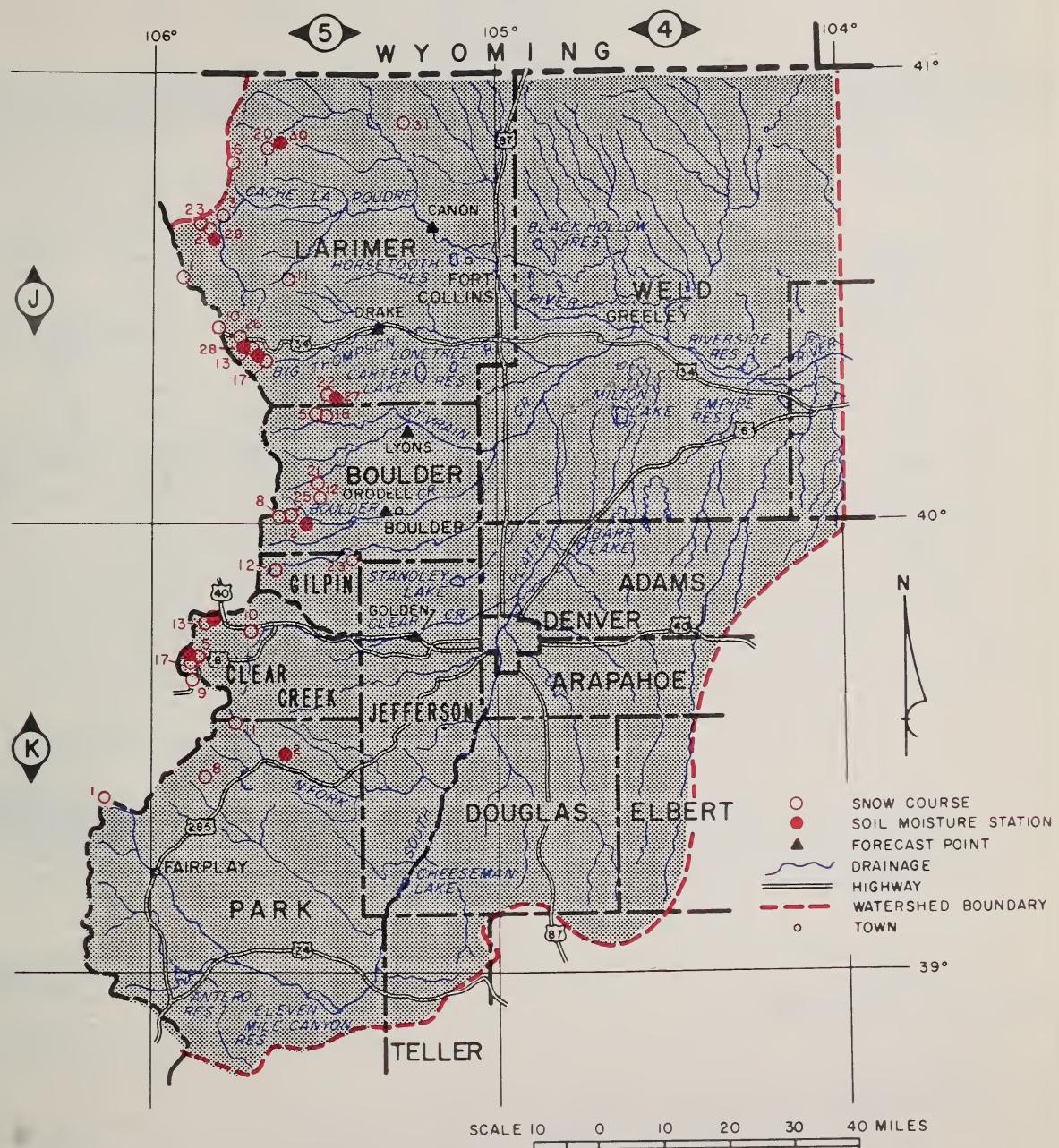
STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Big Thompson at Drake (2)	134	126	106
Boulder at Orodell	70	127	55
Cache La Poudre at Canon(1)	225	120	189
Clear Creek at Golden (3)	190	139	137
Saint Vrain at Lyons	115	137	84

(1) Observed flow minus diversions from Michigan, Colorado and Laramie rivers, plus diversions for irrigation and municipal use above station.

(2) Observed flow plus by-pass to power plants.

(3) Observed flow minus diversions through Jones Tunnel.

SOUTH PLATTE RIVER WATERSHED IN COLORADO



GENERALLY ADEQUATE
100% OR MORE

LIMITED SHORTAGE
75% - 100%

SEVERE SHORTAGE
75% OR LESS

SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
SOUTH PLATTE RIVER AND TRIBUTARIES						
Baltimore	5K23	2/27	33	9.4	5.8	—
Berthoud Falls	5K13	2/27	55	15.9	9.2	11.8*
Big South	5J3	3/4	11	2.5	0.9	2.2
Boulder Falls	5J25	2/26	46	6.6	6.4	10.3*
Cameron Pass (A)	5J1	Delayed			14.8	18.0
Chambers Lake	5J2	3/4	38	10.3	4.1	7.0
Copeland Lake	5J18	2/27	16	2.7	3.3	4.9*
Deadman Hill (A)	5J6	Delayed			8.1	12.2
Deer Ridge	5J17	2/26	35	8.0	2.0	4.9*
Empire	5K10	2/27	36	10.0	4.7	5.0*
Geneva Park	5K11	2/28	20	4.3	1.4	3.8*
Grizzly Peak (B)	5K9	2/26	67	19.1	7.3	14.9
Hidden Valley	5J13	2/25	53	13.0	6.1	9.4
Hoosier Pass	6K1	2/27	49	13.5	7.0	10.0
Hour Glass Lake	5J11	3/2	29	7.1	3.3	6.6
Jefferson Creek	5K8	2/26	43	11.0	4.3	7.5
Lake Irene (B)	5J10	Est.	80	26.0	8.6	18.6
Long's Peak	5J22	2/24	38	9.4	5.6	10.1*
Lost Lake	5J23	3/4	51	15.1	5.8	10.4*
Loveland Pass	5K5	2/28	54	16.3	8.1	12.5
Loveland Lift No. 1	5K24	2/26	91	27.1	12.7	—
Pine Creek	5J31	2/27	12	1.8	2.2	—
Red Feather	5J20	2/27	32	6.8	5.3	6.9
Two Mile	5J26	2/25	69	19.0	6.1	11.9*
University Camp	5J8	2/26	62	20.6	10.8	17.7
Ward	5J21	2/26	24	5.9	4.8	5.6*
Wild Basin	5J5	Est.	65	18.4	5.8	11.9

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

(NS) - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

Jack N. Washichek and Don W. McAndrew
Soil Conservation Service
Colorado State University
Ft. Collins, Colorado

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

ARKANSAS RIVER WATERSHED IN COLORADO

as of

March 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER



Snow pack as of March 1 is better than it has been for some years. The basin as a whole is 160% of normal for this date. High and low snows are both above normal. Some of the low elevation snow is as much as 200% of normal.

SOIL MOISTURE



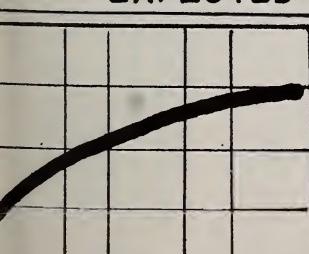
Soil moisture is above normal. This will increase runoff this coming summer.

RESERVOIR STORAGE



Carry-over storage is still slightly below normal, but over twice as good as last year. The Arkansas has been flowing above normal most of the winter. This has contributed some storage.

EXPECTED STREAMFLOW



Water supplies this summer are assured on the Arkansas River. Current forecasts are for about 170% of normal. This has only been exceeded a few times in recent years. Flow of the Purgatoire and Cucharas should both be above normal.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

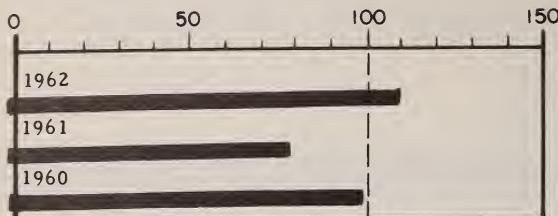
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Colorado

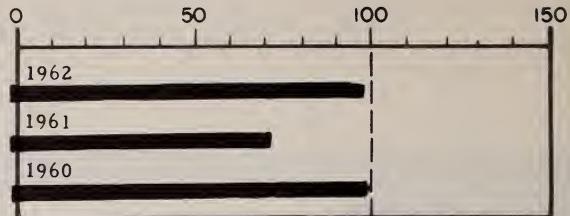
Dearl B. Beach, Area Conservationist,
Colorado Springs, Colorado
Will D. McCorkle, Area Conservationist,
Lamar, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

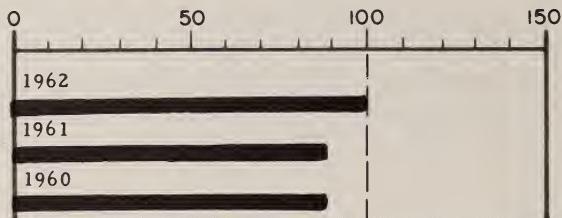
ARKANSAS ABOVE CADDOA DAM



ARKANSAS BELOW CADDOA DAM



PURGATOIRE - CUCHARAS - HUERFANO



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Adobe Creek	61.6	0	0	21.6
Clear Creek	11.4	10.4	5.5	5.0
Cucharas	40.0	7.3	1.8	4.7
Great Plains	150.0	36.8	22.6	51.3
Horse Creek	26.9	11.4	0	7.4
John Martin	366.6	27.0	15.5	52.6
Meredith	41.9	24.3	6.0	14.4
Model	15.0	5.1	4.3	2.5
Sugar Loaf	17.4	10.7	6.5	7.7
Twin Lakes	57.9	30.2	9.3	23.0

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Garfield	7.0	4.6	3.4	4.3
King	8.0	5.5	2.6	5.4
Lake Creek	6.0	4.1	1.6	3.4
LaVeta Pass	8.0	4.2	7.2	3.3
Leadville	7.0	3.8	0.6	1.5

ALL PROFILES 4 FEET DEEP

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER		WINTER	
	AVE.	DEP.	AVE.	DEP.
Arkansas	8.36	+3.49	1.93	+.62

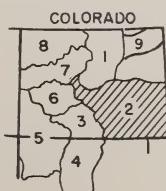
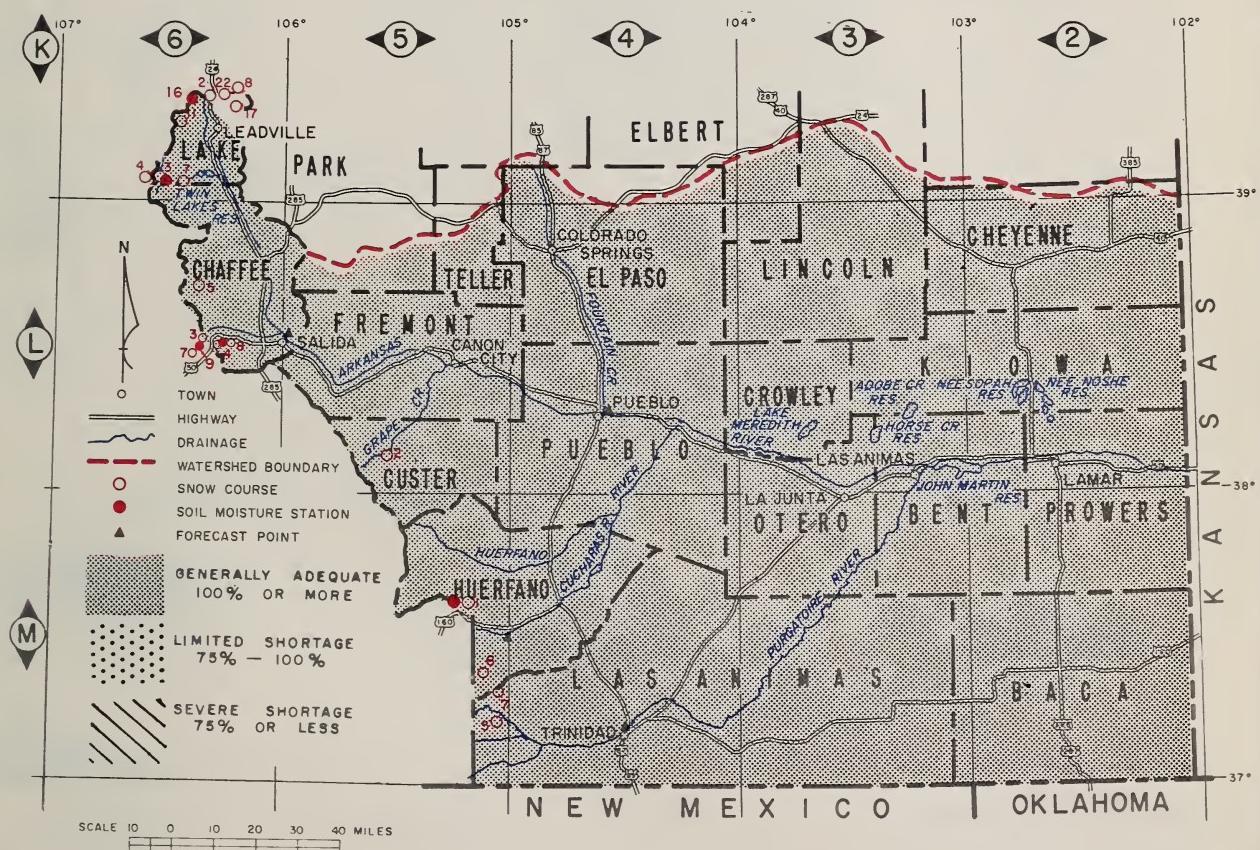
PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

STREAMFLOW FORECAST (1,000 AC. FT.)

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Arkansas at Pueblo (1)	580	170	342
Arkansas at Salida (1)	575	169	339
Cucharas near LaVeta	19	136	14
Purgatoire at Trinidad	54	104	52

(1) Observed flow plus change in storage in Clear Creek, Twin Lakes, and Sugar Loaf Reservoirs minus diversions through Busk-Ivanhoe and Twin Lake Tunnels and Ewing, Fremont Pass, Wurtz and Columbine Ditches.

ARKANSAS RIVER WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
ARKANSAS RIVER						
Blue Lakes	5M6	2/26	13	3.9	--	--
Bigelow Divide	5L3	2/28	27	5.9	--	--
Bourbon	5M5	2/27	38	9.1	5.2	--
Cooper Hill	6K23	2/25	54	11.9	6.4	--
Cucharas Pass	5M7	NS	--	--	--	--
East Fork	6K17	2/27	43	10.0	4.2	8.9*
Four Mile Park	6K7	2/26	38	9.7	3.6	3.7
Fremont Pass	6K8	2/27	68	18.2	7.4	13.2
Garfield	6L8	2/26	58	17.0	9.9	--
LaVeta Pass (B)	5M1	2/26	33	9.1	6.6	8.4
Monarch Pass	6L4	2/26	73	21.6	12.6	14.9
St. Elmo (A)	6L5	2/26	70	19.6	8.7	10.1*
Tennessee Pass	6K2	2/26	54	11.7	4.8	7.9
Tomichi	6L7	2/26	51	13.6	7.2	--
Twin Lakes Tunnel	6K3	2/26	53	16.9	4.3	8.9
Westcliffe	5L2	2/27	31	7.3	5.1	5.4*

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by
 Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

UPPER RIO GRANDE WATERSHED IN COLORADO

as of

March 1, 1962

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO

SNOW COVER



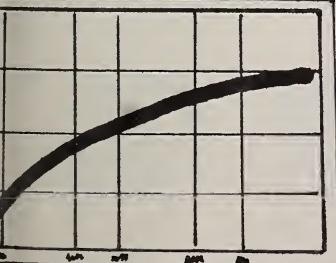
SOIL MOISTURE



RESERVOIR STORAGE



EXPECTED STREAMFLOW



As the snow pack indicated, all streams, except those originating in the Sangre De Cristos, will flow above normal. At this time, the main stem of the Rio Grande is expected to flow about 150% of normal. The other extreme is the Culebra which will flow just about average. Most areas should have sufficient water for irrigation this summer.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

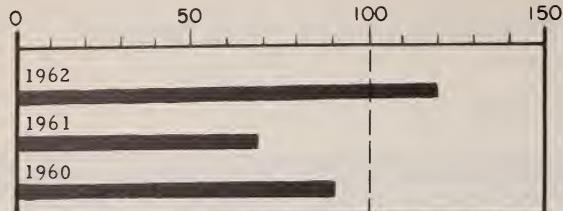
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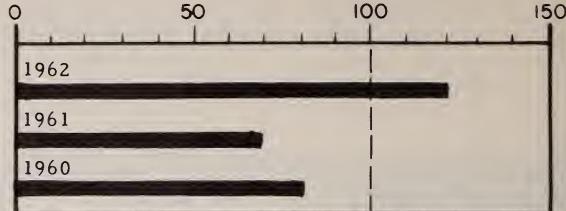
Benny Martin, Area Conservationist,
Monte Vista, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

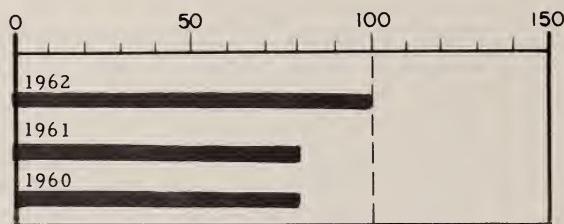
RIO GRANDE



ALAMOSA - CONEJOS



SANGRE DE CRISTO STREAMS



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Continental	26.7	5.7	4.4	7.3
Platoro	60.0	3.4	4.0	4.7
Rio Grande	45.8	11.1	6.3	11.1
Sanchez	103.2	12.2	6.5	9.6
Santa Maria	45.0	3.6	2.7	7.5
Terrace	17.7	7.5	2.3	2.6

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE.		WINTER AVE. DEP. Dec-Jan	
	AVE.	DEP.	AVE.	DEP.
Rio Grande (Colo.)	8.26	+3.74	.59	-.28

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alberta Park	9.0	4.1	1.1	3.3
Bristol View	7.0	3.9	6.7	3.6
LaVeta Pass	8.0	4.2	7.2	3.3
Mogote	7.0	2.1	1.8	1.5

ALL PROFILES 4 FEET DEEP

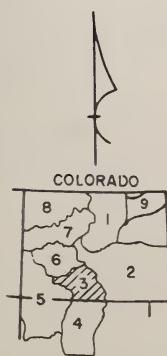
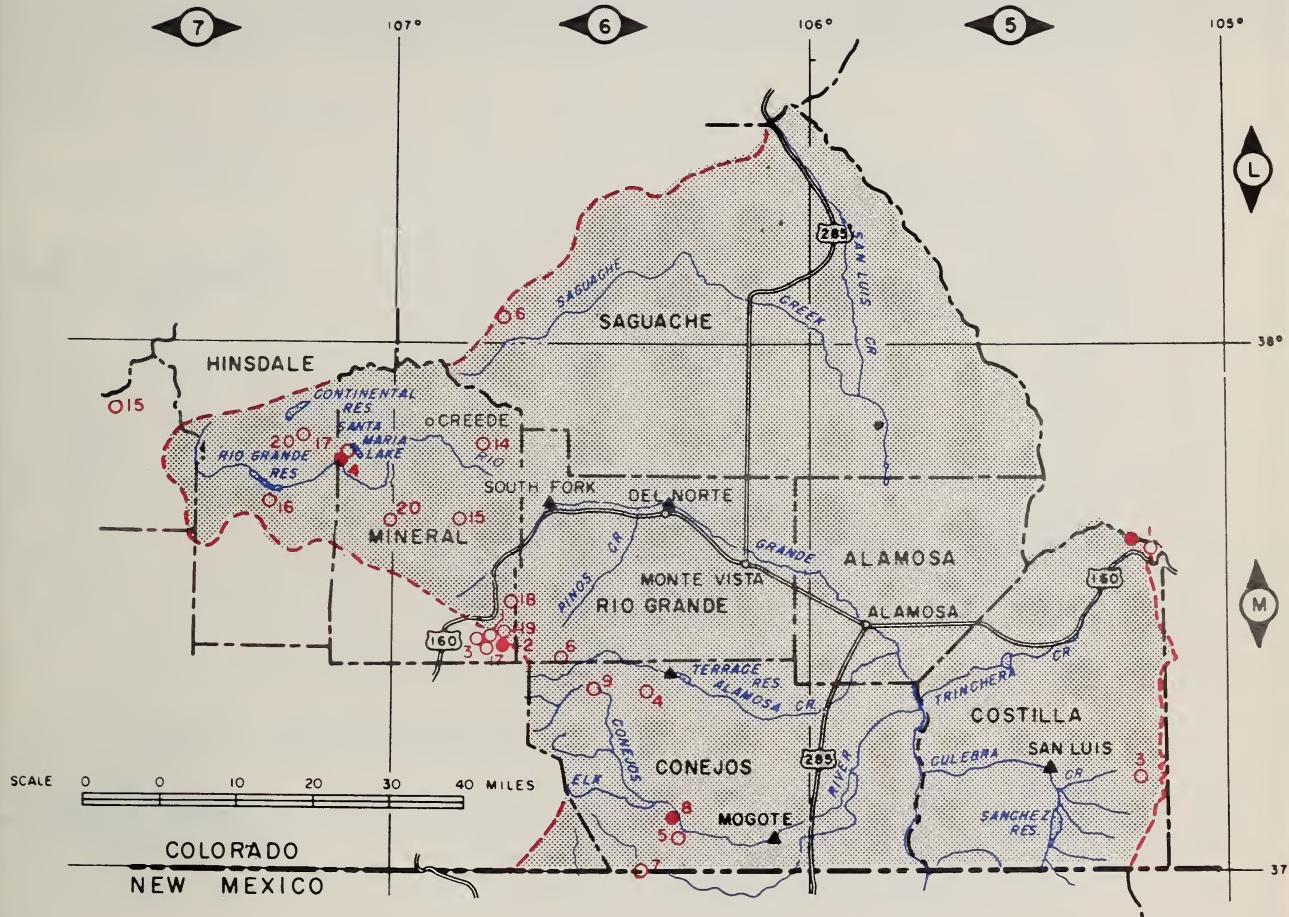
STREAMFLOW FORECAST (1,000 AC. FT.) APRIL THROUGH SEPTEMBER

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Alamosa above Terrace	92	130	71
Conejos near Mogote	255	129	197
Culebra at San Luis (2)	25	104	24
Rio Grande nr. Del Norte (1)	675	137	491
Rio Grande at Thirty Mile Bridge (1)	155	133	112
South Fork at South Fork (1)	152	126	21

(1) Observed flow plus change in storage in Santa Maria, Rio Grande, and Continental Reservoir

(2) Observed flow plus changes in storage in Sanchez Reservoir.

UPPER RIO GRANDE WATERSHED IN COLORADO



○ SNOW COURSE
 ● SOIL MOISTURE STATION
 ▲ FORECAST POINT
 — DRAINAGE
 - - - HIGHWAY
 - - - WATERSHED BOUNDARY
 □ TOWN

■ GENERALLY ADEQUATE
 100% OR MORE

▨ LIMITED SHORTAGE
 75% - 100%

△ SEVERE SHORTAGE
 75% OR LESS

SNOW

SNOW COURSE	NO.	DATE OF SURVEY	CURRENT INFORMATION		PAST RECORD	
			SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	LAST YEAR	AVERAGE 1943 - 57
RIO GRANDE IN COLORADO						
Cochetopa Pass	6L6	2/26	26	5.6	5.3	4.8*
Hiway	6M19	3/1	95	28.7	8.8	--
Lake Humphreys	6M15	NS	--	--	3.4	6.2*
Pass Creek	6M18	2/28	64	16.8	3.4	--
Pool Table (A)	5M14	3/1	38	9.5	3.8	4.8*
Porcupine (A)	7M20	3/1	62	16.1	4.1	9.0*
Red Mountain Pass (B)	7M15	2/23	103	34.2	16.4	22.5*
Santa Maria	7M17	2/27	34	7.3	1.4	4.7
Upper Rio Grande	7M16	2/27	49	11.2	4.9	6.8
Wolf Creek Pass	6M1	3/1	104	32.9	9.8	25.4
Wolf Creek Summit (B)	7M17	2/28	112	32.4	11.3	24.7*
ALAMOSA RIVER						
Silver Lakes	6M4	2/23	40	10.0	4.2	6.2
Summitville (A)	6M6	3/1	81	21.9	10.9	16.2
CONEJOS RIVER						
Cumbres Pass (A)	6M7	3/1	76	23.9	9.8	16.8
Platoro (A)	6M9	3/1	72	19.6	NS	14.4*
River Springs	6M5	2/26	41	9.3	3.6	7.4
SANGRE DE CRISTO RANGE (Colo.)						
Blue Lakes (B)	5M6	2/26	13	3.9	--	--
Cucharas Pass (B)	5M7	NS	--	--	--	--
Culebra	5M3	2/28	39	9.0	6.3	8.7
LaVeta Pass	5M1	2/26	33	9.1	6.6	8.4

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

**RIO GRANDE WATERSHED IN NEW MEXICO
as of**

March 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER



Snow cover over the Rio Grande Basin in New Mexico is spotty. Some areas are considerably above normal while others are below the 15-year average. The headwaters area of the Rio Grande is much above normal. Snowpack on the Canadian and Pecos Basins is above normal.

SOIL MOISTURE



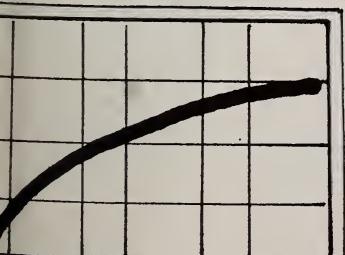
Soil moisture, as indicated in the February bulletin, is much better than last year, but only about normal. Soil moisture conditions in New Mexico probably will not have much affect on runoff this summer. Valley soils are reported as good.

RESERVOIR STORAGE



Carry-over storage was again diminished last year. Elephant Butte now contains 405,000 acre feet compared to 428,000 acre feet last year. Reservoirs on the Pecos and Canadian drainages again this year have good supplemental storage.

EXPECTED STREAMFLOW



Most of the streams in New Mexico are expected to flow above normal. Inflow to El Vado should be about 250,000 acre feet, while the main stem of the Rio Grande should flow nearly 1,000,000 acre feet at Otwi. Using the 15-year, 1943-57 average, the Rio Grande at San Marcial should flow about 175% of normal. Using the Elephant Butte Irrigation District average, this percentage is only 10% of average.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

ISSUED BY: SOIL CONSERVATION SERVICE

Courtney A. Tidwell, State Conservationist,
New Mexico

H. M. Cavett, Area Conservationist,
Santa Fe, New Mexico

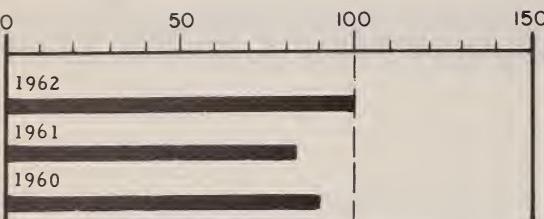
WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

RESERVOIR STORAGE (1,000 AC. FT.)

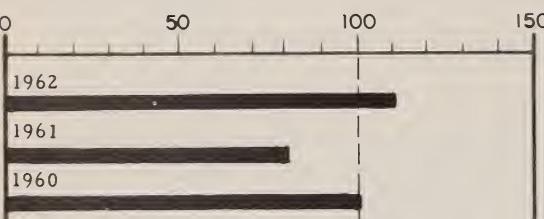
RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Alamorgordo	122.1	116.0	122.1	55.4
Caballo	344.0	71.0	73.8	170.4
Elephant Butte	2206.8	405.3	427.7	606.6
El Vado	194.5	2.6	2.6	34.9
McMillan-Avalon	44.5	16.0	43.0	13.4
Red Bluff (Tex)	307.0	63.3	131.0	91.7
Conchas	600.0	279.4	279.4	262.5

MEASURED FIRST OF MONTH

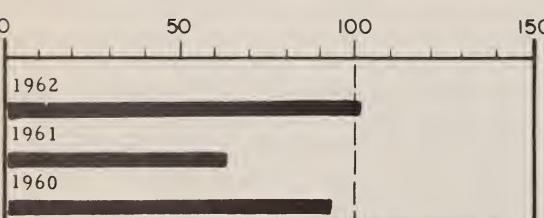
RIO CHAMA



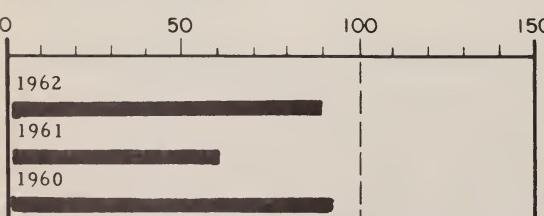
UPPER RIO GRANDE



MIDDLE RIO GRANDE



LOWER RIO GRANDE



PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE.		WINTER DEP.	
	AVE.	DEP.	AVE.	DEP.
Lower Rio Grande	5.52	+1.84	1.10	.31
Middle Rio Grande	9.05	+2.72	2.37	.15
Upper Rio Grande	8.26	+3.74	.59	-.28

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alberta Park (Colo)	9.0	4.1	1.1	3.3
Aqua Piedra	7.2	1.1	2.9	1.7
Bateman	6.7	3.0	0.2	2.7
Big Tesuque	3.7	1.9	0.7	1.4
Bristol View (Colo)	7.0	3.9	6.7	3.6
Chamita (New Mex.)	8.0	3.4	1.9	2.5
Fenton Hill	6.5	4.3	4.3	--
Mogote (Colo)	7.0	2.1	1.8	1.5
Red Summit	4.8	0.4	0.2	2.2
Rio En Medio	3.5	2.0	0.1	1.2
Taos Canyon	3.3	2.5	0.6	1.4

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT.)

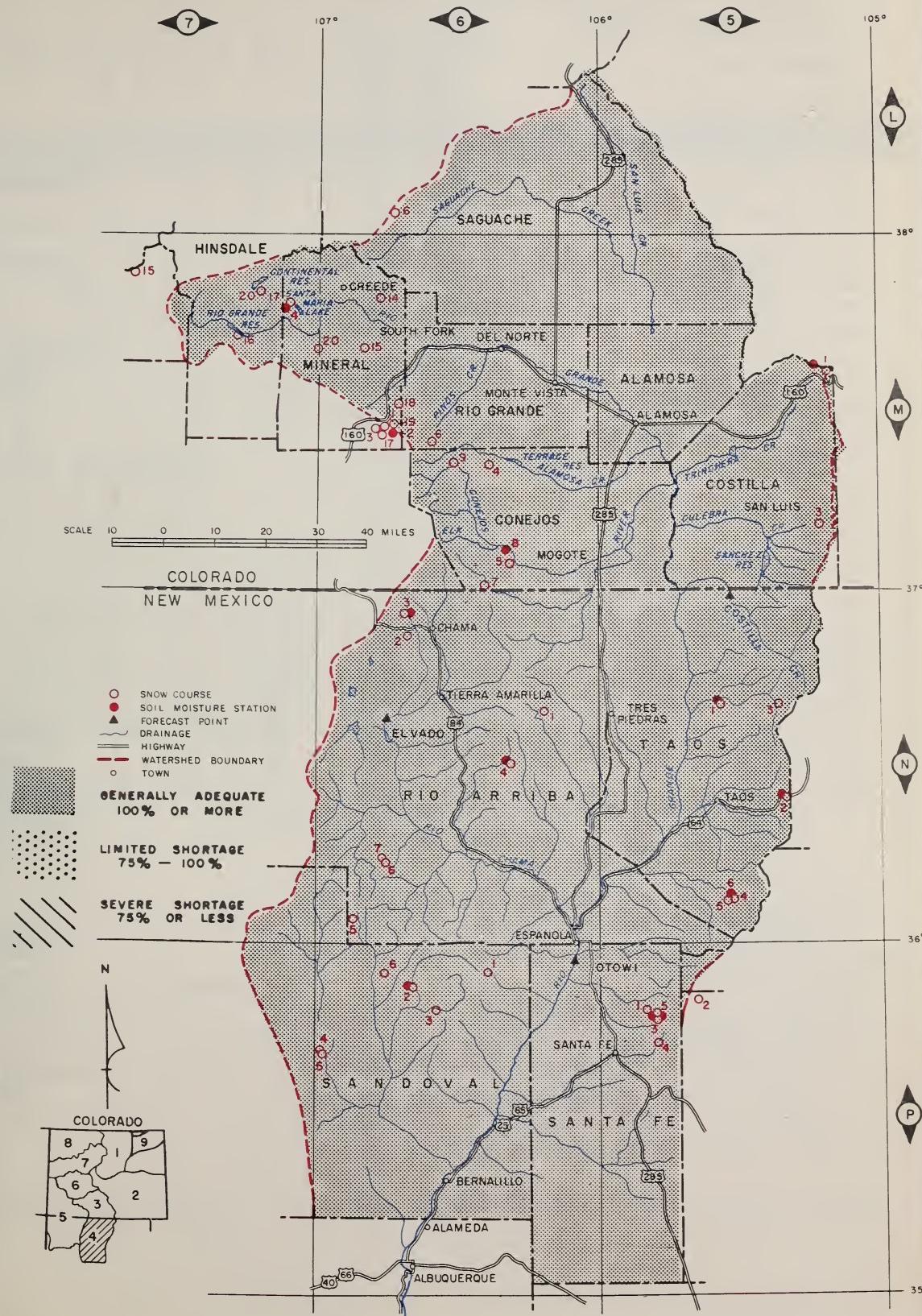
STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Costilla at Costilla	25	93	27
Pecos at Pecos	75	156	48
Rio Chama nr. La Puenta	275	131	210
Rio Grande at Otowi (10)*	1000	158	633
Rio Grande at San Marcial (10)*	760	175	434

Rio Grande at San Marcial is Forecast at 109% of the Elephant Butte Irrigation District's Normal.

(10) Observed flow plus changes in storage in Santa Maria, Rio Grande, Continental, Terrace, Sanchez, Platoro and El Vado Reservoirs.

* Rio Grande at Otowi and Rio Grande at San Marcial Forecast and Average Mar-July inclusive.

RIO GRANDE WATERSHED IN NEW MEXICO



SNOW

SNOW COURSE RIO GRANDE (COLORADO & NEW MEXICO)	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES) LAST YEAR	AVERAGE 1943 - 57
Cochetopa Pass (Colorado)	6L6	2/26	26	5.6	5.3	4.8*
Culebra	5M3	2/28	39	9.0	6.3	8.7
Cumbres Pass (A)	6M7	3/1	76	23.9	9.8	16.8
Hiway	6M19	3/1	95	28.7	8.8	--
Lake Humphreys	6M15	NS	--	--	3.4	6.2*
LaVeta Pass	5M1	2/26	33	9.1	6.6	8.4
Pass Creek	6M18	2/28	64	16.8	3.4	--
Platoro (A)	6M9	3/1	72	19.6	NS	14.4*
Pool Table (A)	6M14	3/1	38	9.5	3.8	4.8*
Porcupine (A)	7M20	3/1	62	16.1	4.1	9.0*
River Springs	6M5	2/26	41	9.3	3.6	7.4
Santa Maria	7M17	2/27	34	7.3	1.4	4.7
Silver Lakes	6M4	2/23	40	10.0	4.2	6.2
Summitville (A)	6M6	3/1	81	21.9	10.9	16.2
Upper Rio Grande	7M16	2/27	49	11.2	4.9	6.8
Wolf Creek Pass	6M1	3/1	104	32.9	9.8	25.4
Wolf Creek Summit	6M17	2/28	112	32.4	11.3	24.7*
Aspen Grove (New Mexico)	5P1	2/26	32	9.7	2.4	4.1
Bateman	6N4	2/28	50	12.4	7.8	9.7*
Big Tesuque	5P3	2/26	23	6.8	2.6	4.7
Chama Divide	6N2	2/26	17	4.0	3.0	4.4
Chamita	6N3	2/26	44	9.0	5.8	9.3
Cordova (A)	5N5	3/1	51	14.8	7.9	9.5
Elk Cabin	5P4	2/26	10	3.8	3.8	3.1*
Fenton Hill	6P2	2/27	23	4.5	4.3	3.7*
Hematite Park	5N3	3/1	22	3.0	4.9	5.6
Panchuela	5P2	2/27	21	5.7	2.9	3.3
Payrole (A)	6N1	3/1	43	9.9	6.2	8.4
Quemazon	6P1	2/26	40	11.0	9.3	5.8*
Red River	5N1	3/1	32	5.8	4.8	6.9
Rio En Medio	5P5	2/26	32	9.7	6.5	6.8*
Taos Canyon	5N2	3/1	16	5.0	3.6	5.5
Tres Ritos	5N4	2/26	16	4.7	5.4	5.8

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

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This Report Prepared by

Jack N. Washichek and Don W. McAndrew
Soil Conservation Service
Colorado State University
Ft. Collins, Colorado

**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
SAN MIGUEL - DOLORES - ANIMAS - SAN JUAN
WATERSHEDS IN COLORADO & NEW MEXICO**

March ^{as of} 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE -
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER



The snow pack in this area has improved since February 1, and is now sufficiently high to assure a good water year.

The snow cover over these basins ranges from 128% of normal on the Dolores to 133% of the 1943-57 average on the Animas watershed.

SOIL MOISTURE



Soil moisture over these basins remains high and is better than last year. As stated in the February 1 bulletin, this area generally has good Fall precipitation and consequently good soil moisture going into the winter season. Therefore, currently the soil moisture is not much better than the average.

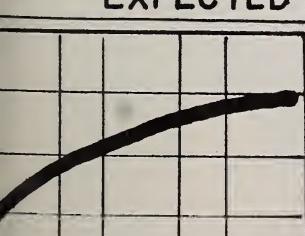
RESERVOIR STORAGE



Reservoir storage in this area is above last year and generally near normal.

Groundhog reservoir is 79% of normal while Vallecito reservoir is 170% of the 1943-57 average. Combined, these reservoirs are filled to 53% of capacity.

EXPECTED STREAMFLOW



Conditions at this time indicate that runoff in the Southwestern portion of Colorado and the area served by the San Juan in New Mexico will be good. Runoff during the April-September period will be considerably above the 1943-57 average. All of the streams are anticipated to flow in excess of 125% of normal.

"THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY"

ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

Benny Martin, Area Conservationist,
Monte Vista, Colorado

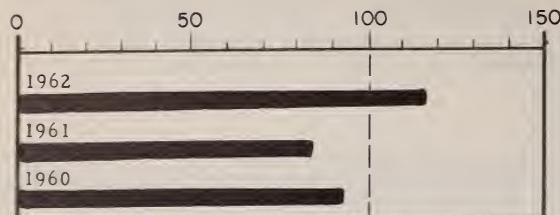
E. A. Nicholson, Area Conservationist *
Grand Junction, Colorado

C. A. Tidwell, State Conservationist,
New Mexico

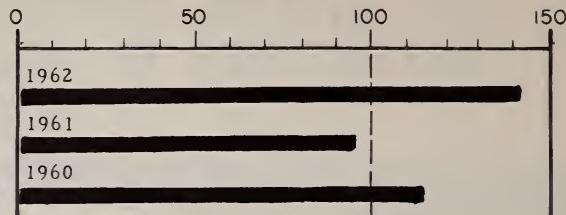
J. B. Christy, Area Conservationist
Albuquerque, N. M.

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

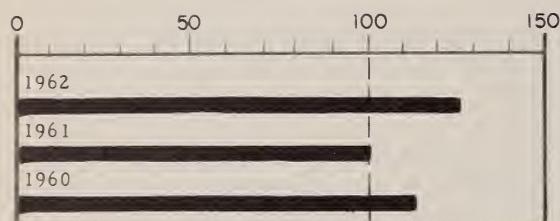
SAN JUAN



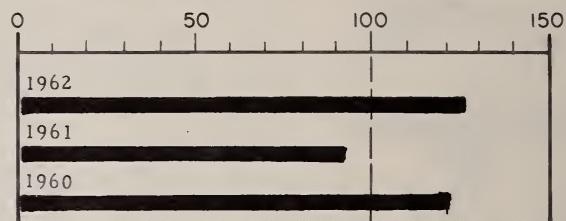
PIEDRA-PINOS-FLORIDA



DOLORES



ANIMAS-LA PLATA



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Groundhog	21.7	5.5	4.0	7.0
Vallecito	126.3	71.2	42.1	41.0

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE. DEP.	WINTER AVE. DEP.
Dolores	8.17	+2.19
San Juan	11.76	+4.04

PRELIMINARY U. S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

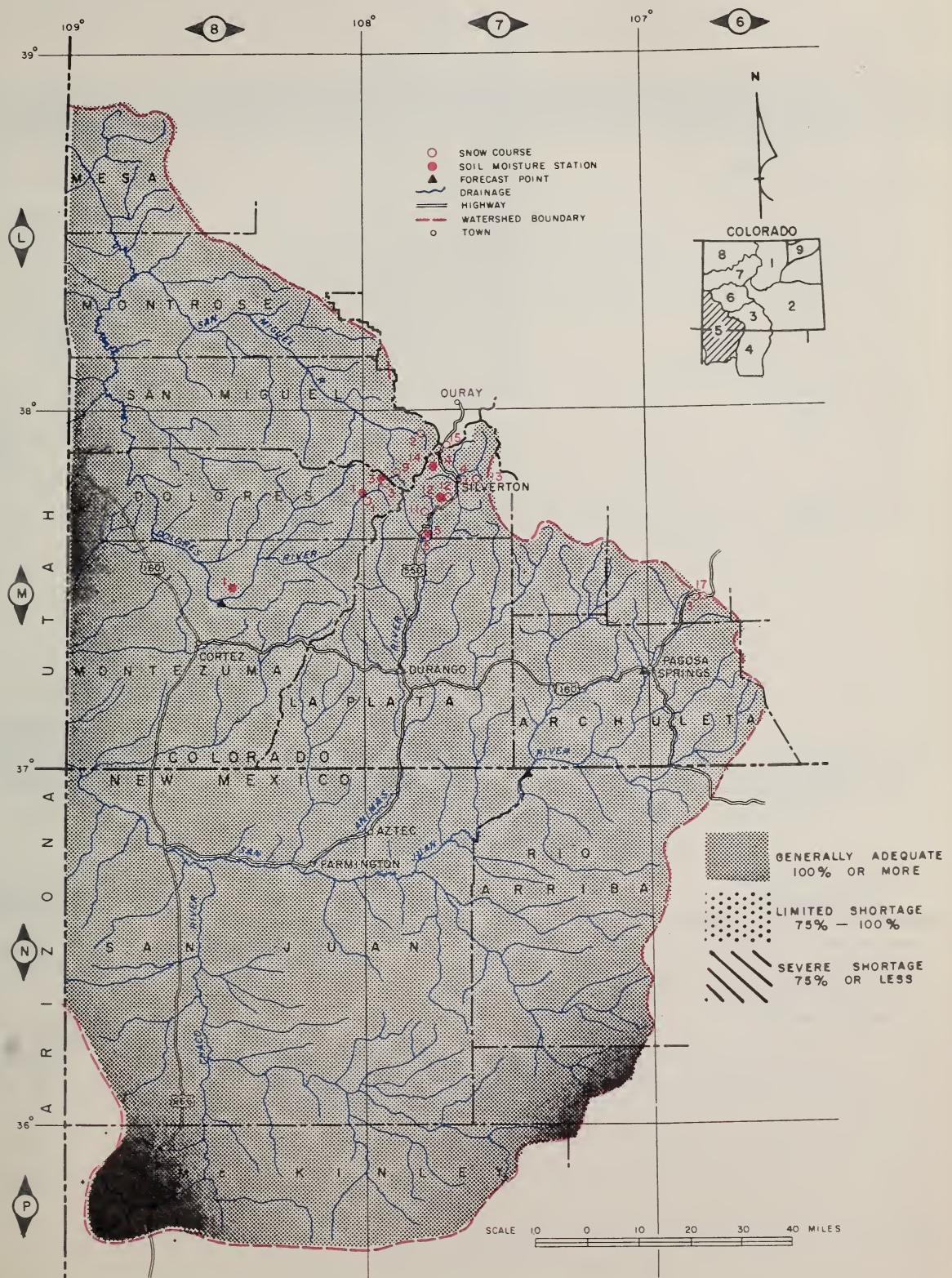
SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Cascade	7.0	5.1	4.5	5.4
Dolores	7.0	0.1	0.7	1.7
Lizard Head	7.0	5.7	4.1	5.3
Mineral Creek	7.0	4.9	4.1	4.8
Molas Lake	7.0	3.8	0.9	3.4
Rico	7.0	5.0	4.8	5.0

STREAMFLOW FORECAST (1,000 AC. FT.)
APRIL THROUGH SEPTEMBER

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Animas at Durango	650	137	475
Dolores at Dolores	375	134	279
Florida near Durango	78	126	62
LaPlata at Hesperus	41	146	28
Los Pinos near Bayfield*	325	148	220
Piedra Creek near Piedra	270	145	186
San Juan at Rosa, N. M.	840	143	587

SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN RIVERS WATERSHEDS IN COLORADO & NEW MEXICO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	LAST YEAR	AVERAGE 1943 - 57
SAN JUAN RIVER						
Chama Divide (B)	6N2	2/26	17	4.0	3.0	4.4
Chamita (B)	6N3	2/26	44	9.0	5.8	9.3
Upper San Juan	6M3	2/28	115	34.1	11.8	27.6
Wolf Creek Pass (B)	6M1	3/1	104	32.9	9.8	25.4
Wolf Creek Summit	6M17	2/28	112	32.4	11.3	24.7*
ANIMAS RIVER						
Cascade	7M5	2/28	55	14.5	5.5	11.3
Howardville	7M13	Est.	53	13.0	5.9	8.7*
Ironton Park (B)	7M6	2/27	47	12.6	8.8	10.3
Mineral Creek	7M14	2/28	63	17.3	6.0	11.8*
Molas Lake	7M12	2/28	60	16.3	5.1	12.5*
Red Mountain Pass	6M19	2/28	103	34.2	16.4	22.5*
Silverton Sub-Station	7M4	2/28	36	9.0	2.5	5.1
Spud Mountain	7M11	2/28	99	29.0	10.8	20.3*
DOLORES RIVER						
Lizard Head	7M3	2/26	68	18.9	8.0	13.2
Rico	7M1	2/26	37	9.5	6.0	7.9
Telluride	7M2	2/26	30	7.0	4.5	6.7
Trout Lake	7M9	2/26	61	14.8	6.4	11.5*

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

(NS) - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by
 Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
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WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
GUNNISON RIVER WATERSHED IN COLORADO
as of

March 1, 1962

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



SNOW COVER

Snow pack on the Gunnison is about 134% of normal. Low snows are just above average but the higher elevation snow pack is considerably above normal. Snow cover over the Uncompahgre basin is 36% above normal.



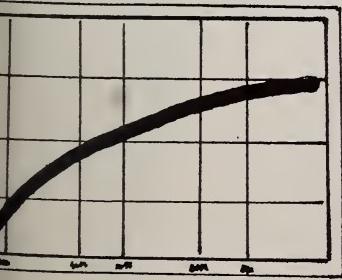
SOIL MOISTURE

Another bright spot on this drainage is the soil moisture. The mountain soils are almost saturated. This condition will increase streamflow over the entire basin.



RESERVOIR STORAGE

Storage in Taylor Park Reservoir is nearly twice last year and 74% of capacity. This reservoir has not been this full since 1958. This will be a good supplemental water supply.



EXPECTED STREAMFLOW

Streamflow over the basin should be more than adequate. All streams are being forecast above normal.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

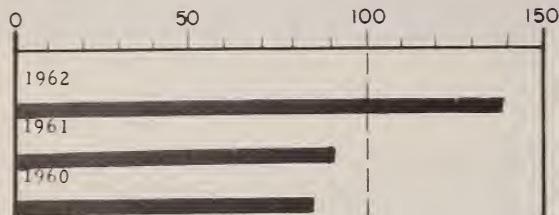
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

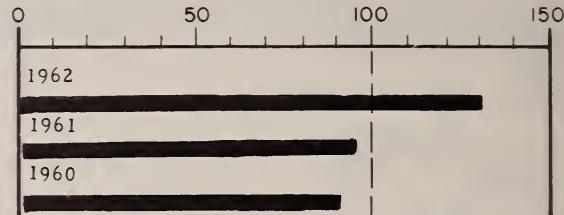
E. A. Nicholson, Area Conservationist,
Grand Junction, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

GUNNISON



UNCOMPAGRE



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Taylor	106.2	78.4	46.2	60.9

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE. DEP.	WINTER AVE. DEP. Dec-Jan
Gunnison	8.28	+3.83 3.09 +.92

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

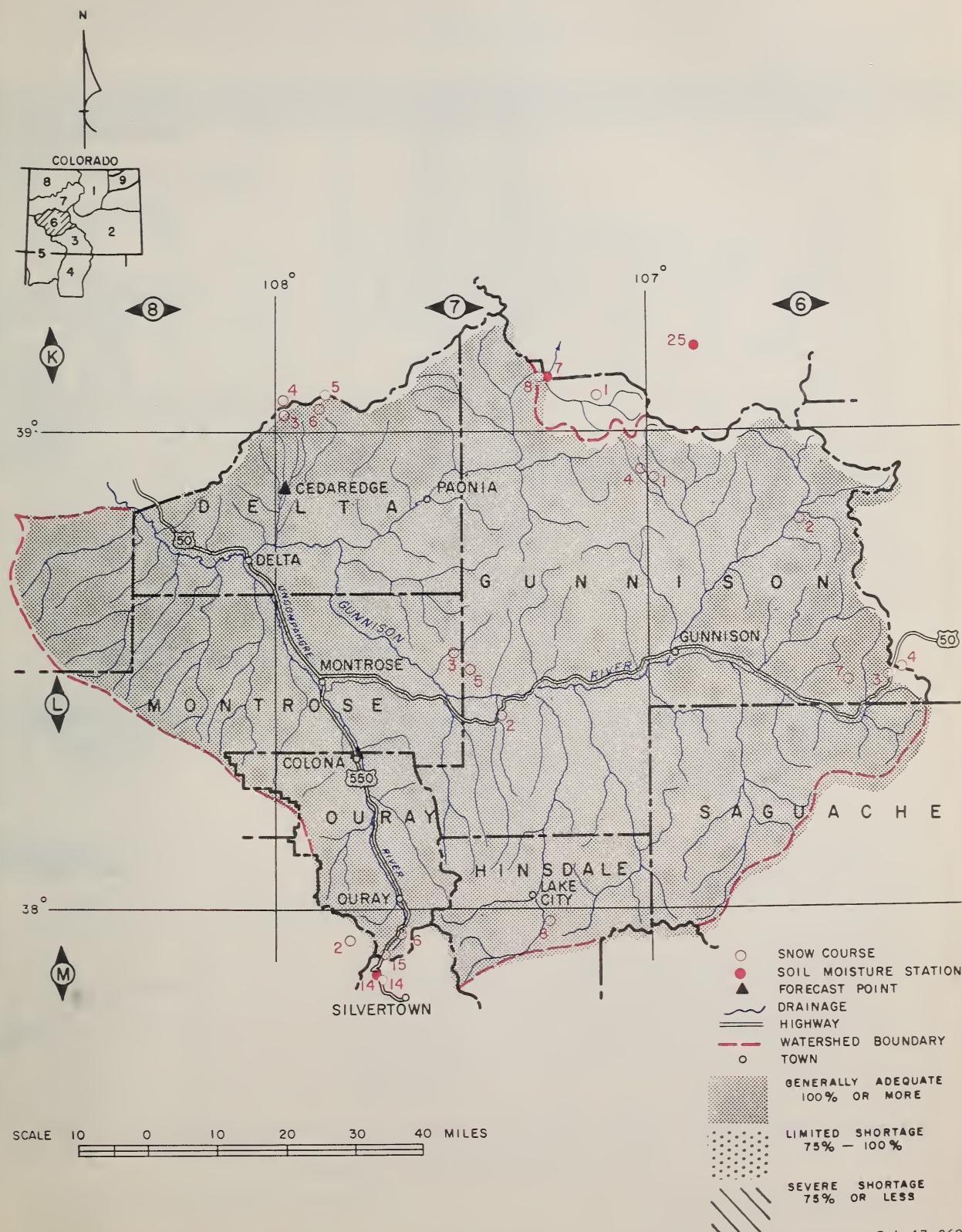
STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
King	8.0	5.5	2.6	5.4
Maroon	8.0	7.0	0.1	2.6
Mineral Creek	7.0	4.9	4.1	4.8
Placita	8.0	6.4	0.1	2.1

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT.)

STREAM AND STATION	FORECAST APRIL SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Gunnison nr. Grand Jct.	1900	137	1386
Surface Cr. at Cedaredge	25	139	18
Uncompahgre at Colona	198	137	145

GUNNISON RIVER WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
GUNNISON RIVER						
Alexander Lake (A)	7K3	2/28	89	24.0	7.2	17.6
Black Mesa	7L5	2/27	64	17.8	--	--
Blue Mesa	7L2	2/27	42	10.3	4.0	--
Cochetopa Pass (B)	6L6	2/26	26	5.6	5.3	4.8*
Crested Butte	6L1	2/25	61	14.9	6.4	12.6
Keystone	7L3	2/28	88	26.3	7.6	--
Lake City	7M8	2/24	38	9.7	5.5	7.8*
Long Draw	7L4	2/27	43	10.6	4.5	--
Mesa Lakes (B)	7K4	2/25	60	15.3	7.1	13.2
Monarch Pass (B)	6L4	2/26	73	21.6	12.6	14.9
McClure Pass (A)	7K8	2/28	79	23.7	8.6	13.5*
Mineral Creek (B)	7M14	2/28	63	17.3	6.0	11.8*
North Lost Trail (A) (B)	7K1	2/28	71	22.0	7.1	12.8
Park Cone	6L2	3/1	57	13.5	4.4	9.4
Park Reservoir (A)	7K6	2/28	105	30.5	9.9	20.9
Porphyry Creek	6L3	2/26	68	19.8	11.8	13.5
Trickle Divide (B) (A)	7K5	2/28	109	31.6	12.2	22.2
Tomichi	6L7	2/26	51	13.6	7.2	--
UNCOMPAGHRE RIVER						
Ironton Park	7M6	2/27	47	12.6	8.8	10.3
Lizard Head	7M3	2/26	68	18.9	8.0	13.2
Red Mountain Pass (B)	7M15	2/28	103	34.2	16.4	22.5*
Telluride	7M2	2/26	30	7.0	4.5	6.7
Trout Lake	7M9	2/26	61	14.8	6.4	11.5*

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by
 Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

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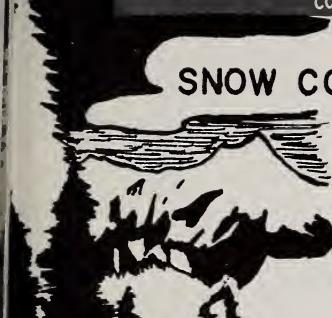
OFFICIAL BUSINESS

**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

COLORADO RIVER WATERSHED IN COLORADO

as of
March 1, 1962

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



SNOW COVER

As of March 1, snow cover on this basin remains well above normal. The high elevations are 50% higher than usual while the lower areas are only about 10 to 20 percent above normal. The basin as a whole is 135% of normal.



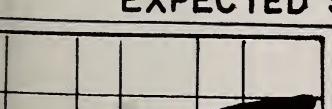
SOIL MOISTURE

Soil moisture remains relatively good. As indicated in the February bulletin this will increase the runoff this summer.



RESERVOIR STORAGE

Considering only two reservoirs on the Colorado drainage, Granby and Green Mountain, storage is exceptionally high. Granby, which is a part of the Big Thompson Project is higher than any time since 1953-54 season.



EXPECTED STREAMFLOW

Streamflow will be above average over the entire basin. The Roaring Fork will flow about 140% of average while the other tributaries will be slightly less. The Colorado as a whole should flow in the vicinity of 130% of the 1943-57 average.

THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY

ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

E. A. Nicholson, Area Conservationist
Grand Junction, Colorado
M. H. Weaver, Area Conservationist,
Glenwood Springs, Colorado

SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
COLORADO RIVER (UPPER)						
Arrow	5K6	2/26	52	12.4	5.6	9.0
Berthoud Pass	5K3	2/27	60	16.4	7.9	11.5
Berthoud Summit	5K14	2/27	67	19.6	10.7	14.2*
Blue River	6K21	2/27	36	8.7	3.7	--
Cooper Hill	6K23	2/25	54	11.9	6.4	--
Fiddlers Gulch	6K5	Est.	75	20.6	NS	13.6
Fremont Pass	6K8	2/27	68	18.2	7.4	13.2
Frisco	6K13	2/28	35	8.6	2.7	7.8*
Glen Mar Ranch	6K20	2/23	42	8.9	4.6	7.2*
Gore Pass	6J11	2/27	54	14.3	3.9	9.2*
Granby	5J16	2/26	38	8.6	2.8	5.9*
Grand Lake	5J19	2/26	44	10.1	4.8	7.4*
Grizzly Peak	5K9	2/26	67	19.1	7.3	14.9
Hoosier Pass (B)	6K1	2/27	49	13.5	7.0	10.0
Jones Pass	5K21	2/23	57	14.8	6.8	--
Lake Irene	5J10	Est.	80	26.0	8.6	18.6
Lapland	5K7	2/27	50	12.7	4.2	10.3
Lulu	5J7	Est.	67	18.4	8.8	13.9
Lynx Pass	6K6	2/27	65	16.3	5.5	10.6
McKenzie Gulch	6K28	2/26	27	6.6	—	--
Middle Fork Camp Ground	5K4	2/23	41	10.1	5.4	8.0
Milner Pass	5J24	NS	--	--	NS	11.2*
Monarch Lake	5J14	2/27	44	10.9	5.8	10.8*
North Inlet Grand Lake	5J9	Est.	44	10.8	NS	8.0
Pando	6K19	2/27	39	10.2	4.4	9.9*
Phantom Valley	5J4	2/26	46	11.4	4.5	8.9
Ranch Creek	5K18	2/26	43	10.9	4.6	--
Shrine Pass	6K9	2/27	71	20.5	7.7	14.0
Snake River	5K16	2/26	38	8.8	3.0	7.9*
Summit Ranch	6K14	Est.	45	10.2	5.6	6.9*
Tennessee Pass	6K2	2/26	54	11.7	4.8	7.9
Vail Pass	6K15	2/27	75	21.0	6.6	16.5*
Vasquez Creek	5K19	2/26	53	14.6	5.5	--
Willow Creek Pass	6J5	2/26	69	15.5	6.3	10.8
ROARING FORK RIVER						
Aspen	7J22	2/23	63	16.4	6.8	--
Independence Pass Tunnel	6K4	2/26	76	24.4	6.8	14.3
Ivanhoe	6K10	2/26	73	20.1	5.9	15.7*
Lift	7K27	2/23	82	21.0	10.9	--
McClure Pass (A)	7K8	2/28	79	23.7	8.6	13.5*
Nast	6K6	2/24	35	6.9	2.0	6.0
North Lost Trail (A)	7K1	2/28	71	22.0	7.1	8.0
PLATEAU CREEK						
Alexander (A) (B)	7K3	2/28	89	24.0	7.2	17.6
Mesa Lakes	7K4	2/25	60	15.3	7.1	13.2
Park Reservoir (A) (B)	7K6	2/28	105	30.5	9.9	20.9
Trickle Divide (A)	7K5	2/28	109	31.6	12.2	22.2

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

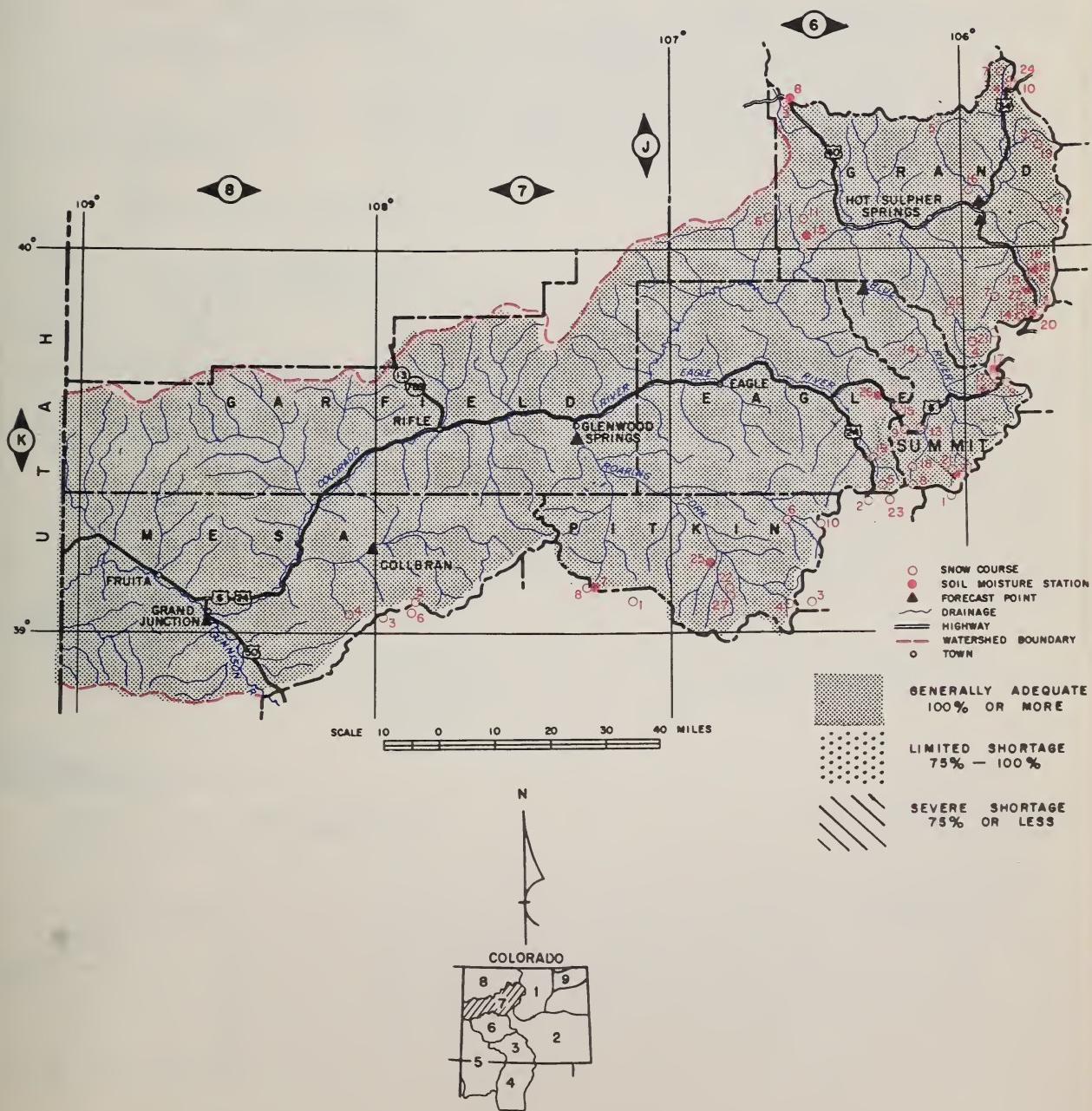
Jack N. Washichek and Don W. McAndrew

Soil Conservation Service

Colorado State University

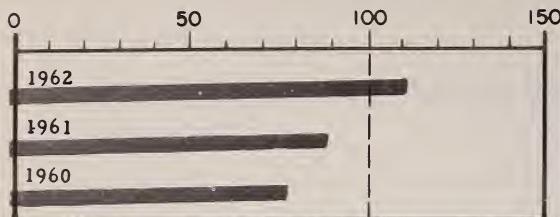
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COLORADO RIVER WATERSHED IN COLORADO

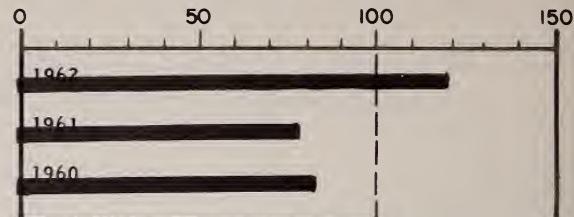


WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

UPPER COLORADO ABOVE GLENWOOD SPRINGS



LOWER COLORADO BELOW GLENWOOD SPRINGS



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Granby*	465.5	354.5	247.5	201.3
Green Mt.	146.9	82.9	65.0	68.0

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Berthoud Pass	8.0	6.7	5.4	4.0
Blue River	7.0	5.6	1.3	3.1
Gore	7.0	4.8	0.2	1.6
Maroon	8.0	7.0	0.1	2.6
Muddy Pass	8.0	7.4	0.6	2.7
Placita	8.0	6.4	0.1	2.1
Ranch Creek	7.0	5.5	3.9	4.4
Vail Pass	8.0	7.0	0.2	2.8
Vasquez	7.0	--	5.4	3.9

ALL PROFILES 4 FEET DEEP

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE. DEP.	WINTER AVE DEC-JAN.
Upper Colorado	9.86 +4.59	3.35 +.57
Lower Colorado	8.26 +3.61	2.03 +.12

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

STREAMFLOW FORECAST (1,000 AC. FT.)

APRIL THROUGH SEPTEMBER.

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Blue River abv. Green Mt. Dam	325	121	290
Colo. R. nr. Granby (4)	285	121	235
Colo. R. at Glenwood Sprs.(5)	2000	129	1546
Plateau Cr. near Collbran	69	121	57
Roaring Fork at Glenwood Springs (6)	1100	136	803
Williams Fork nr. Parshall	110	140	78
Willow near Granby	65	148	44

(4) Observed flow plus diversions by Adams tunnel and Grand River ditch plus change in storage in Granby Reservoir.

(5) Observed flow plus the changes as indicated in (4) plus Moffat Ditch.

(6) Observed flow plus diversion through Twin Lakes tunnel.

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Ft. Collins, Colorado

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
YAMPA, WHITE, & NORTH PLATTE
RIVERS WATERSHEDS IN COLORADO**

as of
March 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER



Snow pack in these three basins improved slightly during the month of February. Several heavy snows contributed to the pack already laid down and left water prospects good for this summer. Considerable difficulty was experienced in getting snow course measurements, due to recent heavy snowfall.

SOIL MOISTURE



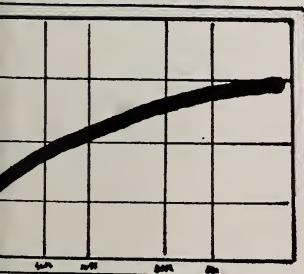
Soil moisture continues to be the best on record. This should contribute substantially to the runoff this summer.

RESERVOIR STORAGE



There are no major reservoirs on these drainages in Colorado, however, reservoirs in Wyoming and Nebraska are below normal.

EXPECTED STREAMFLOW



Streamflow will be more than adequate for irrigation requirements in Colorado. All of the rivers in these basins will flow above normal. It is expected that the Little Snake will flow as much as 150% of normal. The North Platte should far exceed last year's flow.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

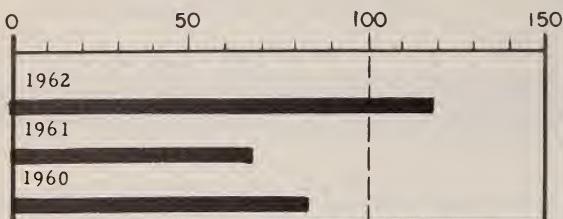
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

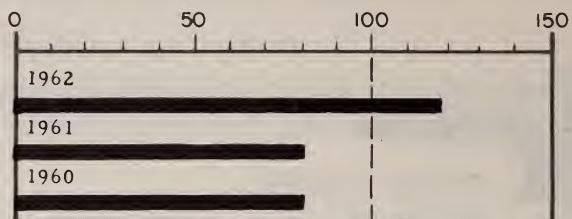
M. H. Weaver, Area Conservationist,
Glenwood Springs, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

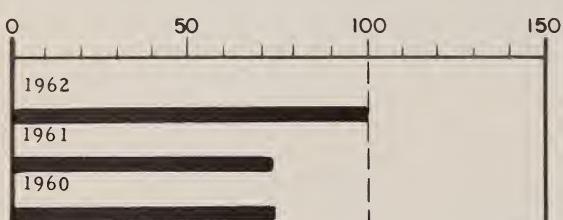
YAMPA



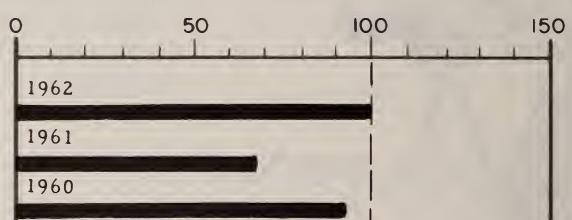
WHITE



LARAMIE



NORTH PLATTE



SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Hahn's Peak	8.0	8.0	5.9	--
Laramie Road	7.0	6.0	0.8	2.6
Muddy Pass	8.0	7.4	0.6	2.7
Two Mile	8.0	5.8	0.5	2.6
Willow Pass	7.0	7.0	1.1	3.9

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT.)

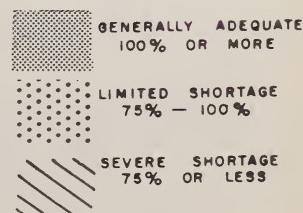
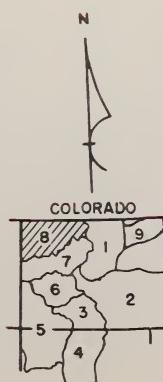
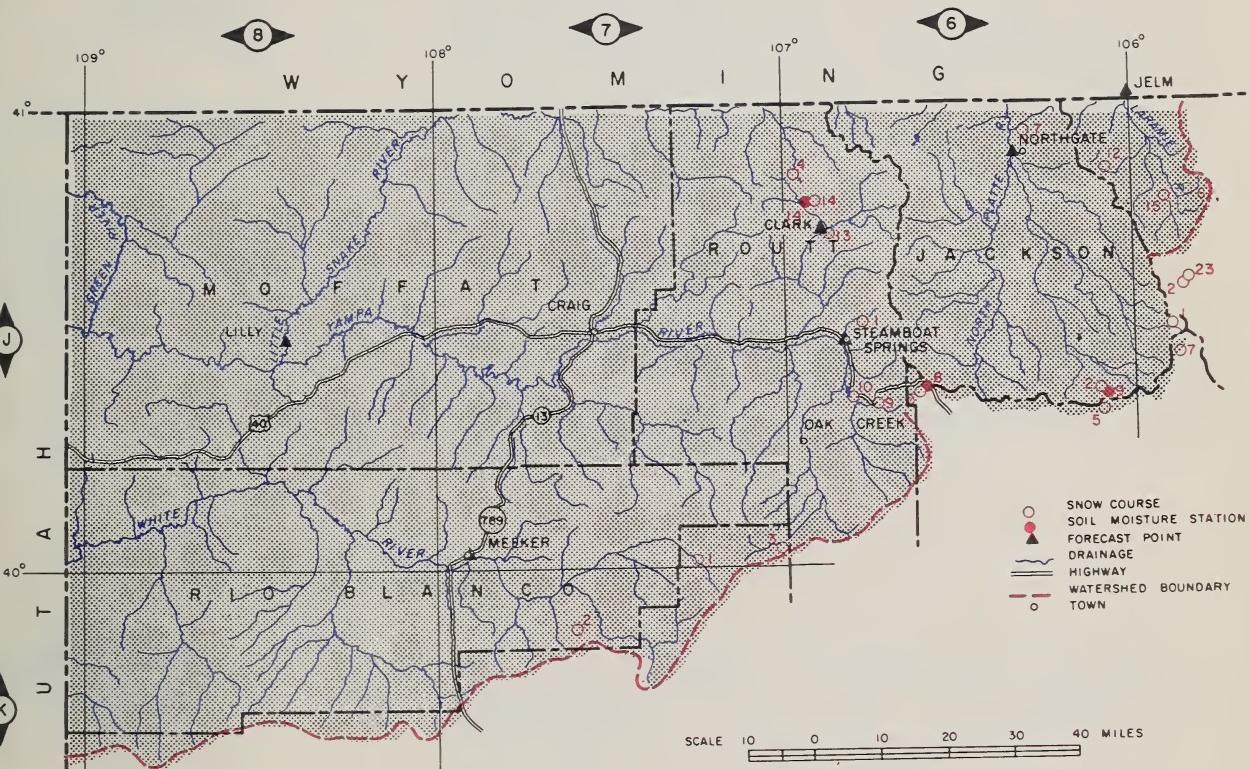
STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Elk at Clark	274	127	215
Laramie at Jelm	146	130	113
Little Shake at Lilly	500	142	350
North Platte at Northgate	420	165	255
White at Meeker	420	125	335
Yampa at Steamboat Sprgs.	350	124	283

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE. DEP.		WINTER AVE. DEP. Dec-Jan	
	AVE.	DEP.	AVE.	DEP.
North Platte	6.08	+3.07	.93	+.13
White	8.33	+3.81	2.08	+.06
Yampa	9.93	+4.14	3.80	+.19

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

YAMPA, WHITE, & NORTH PLATTE RIVERS WATERSHEDS IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
NORTH PLATTE RIVER						
Cameron Pass (A)	5J1	Delayed			14.8	18.0
Columbine Lodge	6J3	2/26	92	26.4	12.2	19.6
Deadman Hill (A) (B)	5J6	Delayed			NS	12.2
McIntyre (B)	5J15	NS	--	--	NS	9.3*
Northgate	6J7	2/26	40	9.1	3.3	5.3*
Park View	6J2	2/26	54	11.7	4.6	7.7
Roach (A) (B)	6J12	Delayed			9.0	15.7
Willow Creek Pass (B)	6J5	2/26	69	15.5	6.3	10.8
YAMPA RIVER						
Bear River	7J3	NS	--	--	NS	--
Clark (A)	6J13	3/1	63	18.3	6.2	--
Columbine Lodge (B)	6J3	2/26	92	26.4	12.2	19.6
Dry Lake (A)	6J1	3/1	88	26.4	11.3	17.1
Elk River (A)	6J4	3/1	76	22.0	9.6	15.1
Hahn's Peak	6J14	NS	--	--	6.2	--
Lynx Pass (B)	6J6	2/27	65	16.3	5.5	10.6
Rabbit Ears	6J9	2/26	105	28.3	14.5	22.0*
Yampa View	6J10	2/26	63	17.0	8.3	12.8*
WHITE RIVER						
Burro Mountain (A)	7K2	2/28	81	22.7	10.9	14.6
Rio Blanco	7J1	3/4	56	15.8	7.8	13.1

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by
 Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

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WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE

LOWER SOUTH PLATTE RIVER WATERSHED IN COLORADO

as of
March 1, 1962

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO

SNOW COVER



The snow pack over the upper basins of the South Platte and its tributaries is 128% of the 15-year average. A few of the low elevation snow courses lost some of their snow pack during the month of February. This is most unusual and was probably caused by the week of unseasonably high temperatures. The snow pack that exists is adequate to guarantee good water supplies this summer.

SOIL MOISTURE



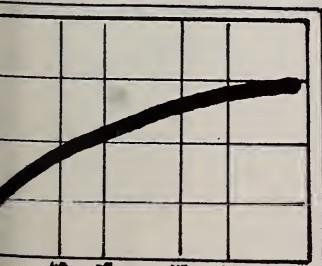
Soil moisture, as indicated in the February bulletin, is near a record high. This condition will increase the flow expected from the melting snow. The valley are all reporting fair soil moisture.

RESERVOIR STORAGE



Carry-over storage in the reservoirs on the lower South Platte is slightly above average. Upstream reservoirs are in better shape. They average about 140% of the 15-year average. A good supplemental supply of reservoir water is in prospect for this year.

EXPECTED STREAMFLOW



All tributaries and the main stem of the South Platte will flow better than average this year. Good water supplies both on the upper and lower Platte are assured. Above average streamflow, above average soil moisture, and above average carry-over storage are bright prospects for water supplies this coming season. Streamflow has been above normal all winter.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

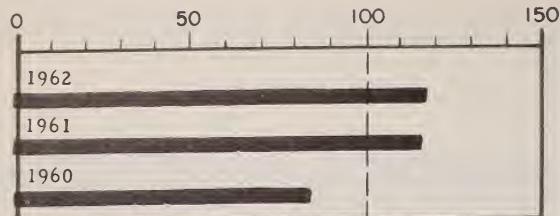
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K. W. Chalmers, State Conservationist
Colorado

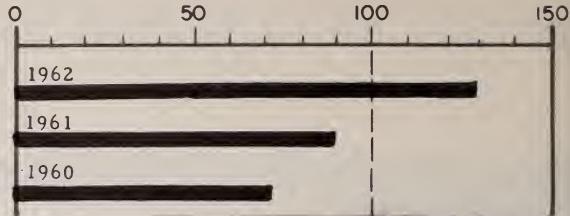
Wallace L. Bruce, Area Conservationist
Sterling, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

UPPER SOUTH PLATTE



LOWER SOUTH PLATTE



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Carter *	108.9	93.1	74.1	63.7
Cheeseman	79.0	78.5	59.7	47.6
Eleven Mile	81.9	97.8	97.8	69.3
Empire	37.7	29.6	31.7	26.6
Horsetooth*	143.5	128.2	98.8	88.0
Jackson Lake	35.4	29.8	32.2	30.6
Julesburg	28.2	19.1	19.1	20.5
Point of Rocks	70.0	65.9	57.1	51.2
Prewitt	32.8	23.0	5.4	18.6
Riverside	57.5	50.4	53.2	42.6

* Shorter Period
Carter and Horsetooth Reservoirs are part of the Big Thompson Project.

* Shorter Period.

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER		WINTER	
	AVE.	DEP.	AVE.	DEP.
Upper So.Pl.	8.07	+3.71	1.42	+.39
Lower So.Pl	7.15	+2.52	.66	-.04

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alpine Camp	7.0	4.2	0.5	1.7
Beaver Dam	6.0	3.3	0.7	1.5
Feather	6.0	2.9	0.0	1.3
Guard Station	7.0	4.6	0.7	1.4
Hoop Creek	6.0	5.4	0.5	2.4
Hoosier Pass	7.0	6.9	0.9	2.9
Kenosha Pass	7.0	4.2	0.4	--
Laramie Road	7.0	6.0	0.8	2.6
Two Mile	8.0	5.8	0.5	3.3

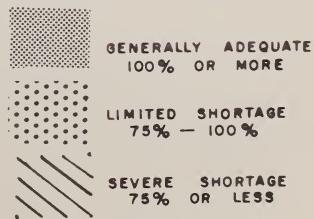
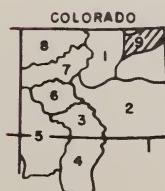
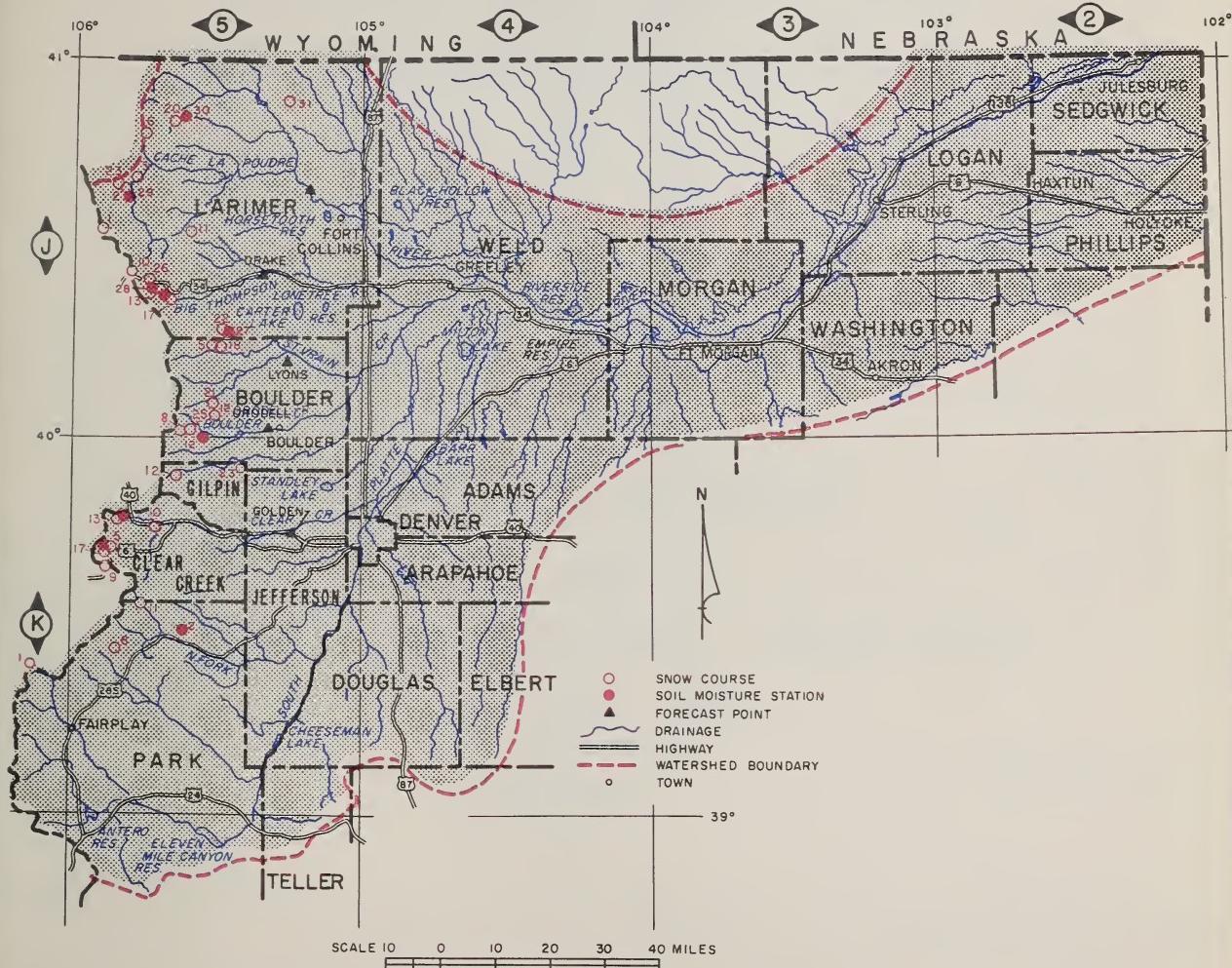
ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT.)

APRIL THROUGH SEPTEMBER

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Cache La Poudre at Canon (1)	225	120	189
Big Thompson at Drake (2)	134	126	106
Saint Vrain at Lyons	115	137	84
Boulder at Orodell	70	127	55
Clear Creek at Golden (3)	190	139	137

LOWER SOUTH PLATTE RIVER WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
SOUTH PLATTE RIVER AND TRIBUTARIES						
Baltimore	5K23	2/27	33	9.4	5.8	--
Berthoud Falls	5K13	2/27	55	15.9	9.2	11.8*
Big South	5J3	3/4	11	2.5	0.9	2.2
Boulder Falls	5J25	2/26	46	6.6	6.4	10.3*
Cameron Pass (A)	5J1	Delayed			14.8	18.0
Chambers Lake	5J2	3/4	38	10.3	4.1	7.0
Copeland Lake	5J18	2/27	16	2.7	3.3	4.9*
Deadman Hill (A)	5J6	Delayed			8.1	12.2
Deer Ridge	5J17	2/26	35	8.0	2.0	4.9*
Dempire	5K10	2/27	36	10.0	4.7	5.0*
Geneva Park	5K11	2/28	20	4.3	1.4	3.8*
Grizzly Peak (B)	5K9	2/26	67	19.1	7.3	14.9
Hidden Valley	5J13	2/25	53	13.0	6.1	9.4
Hoosier Pass	6K1	2/27	49	13.5	7.0	10.0
Hour Glass Lake	5J11	3/2	29	7.1	3.3	6.6
Jefferson Creek	5K8	2/26	43	11.0	4.3	7.5
Lake Irene (B)	5J10	Est.	30	26.0	8.6	18.6
Long's Peak	5J22	2/24	38	9.4	5.6	10.1*
Lost Lake	5J23	3/4	51	15.1	5.8	10.4*
Loveland Pass	5K5	2/28	54	16.3	8.1	12.5
Loveland Lift No. 1	5K24	2/26	91	27.1	12.7	--
Pine Creek	5J31	2/27	12	1.3	2.2	--
Red Feather	5J20	2/27	32	6.8	5.3	6.9
Two Mile	5J26	2/25	69	19.0	6.1	11.9*
University Camp	5J8	2/26	62	20.6	10.8	17.7
Ward	5J21	2/26	24	5.9	4.8	5.6*
Wild Basin	5J5	Est.	65	13.4	5.8	11.9

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by
 Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

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UNITED STATES

DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Snow Survey
 Colorado State University
 Ft. Collins, Colorado

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OFFICIAL BUSINESS

Federal-State Cooperative
Snow Surveys and Water Supply Forecasts
for

Colorado, Rio Grande, Platte
and Arkansas Drainage Basins

LIST AND LOCATION
of
SNOW COURSES
and
SOIL MOISTURE STATIONS
SEASON 1962

SOIL CONSERVATION SERVICE
Colorado Agricultural Experiment Station
Fort Collins, Colorado

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Federal-State Cooperative Snow Surveys
and Water Supply Forecasts
Fort Collins, Colorado
1962 Season

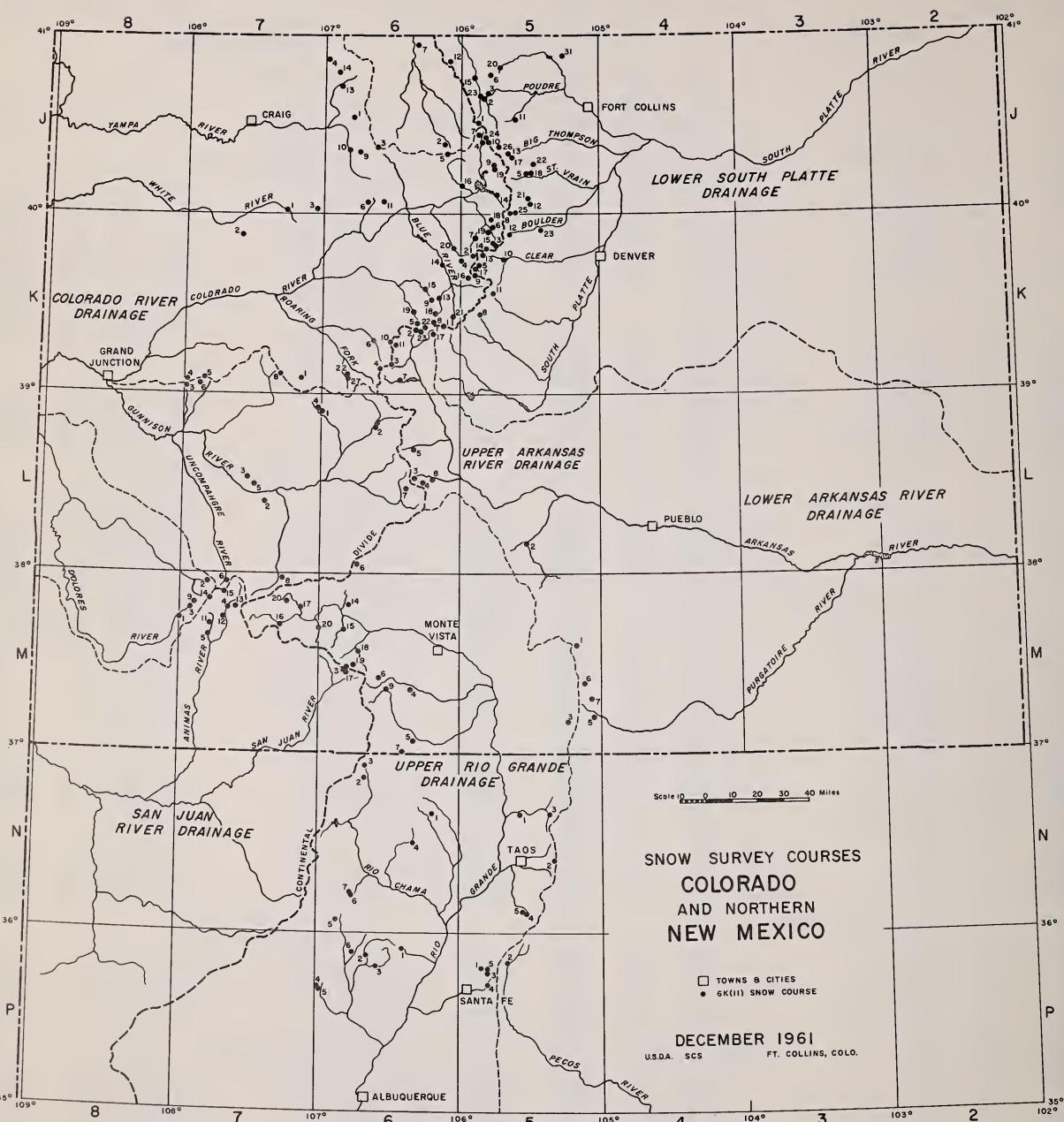
LIST AND LOCATION
OF
SNOW COURSES AND SOIL MOISTURE STATIONS

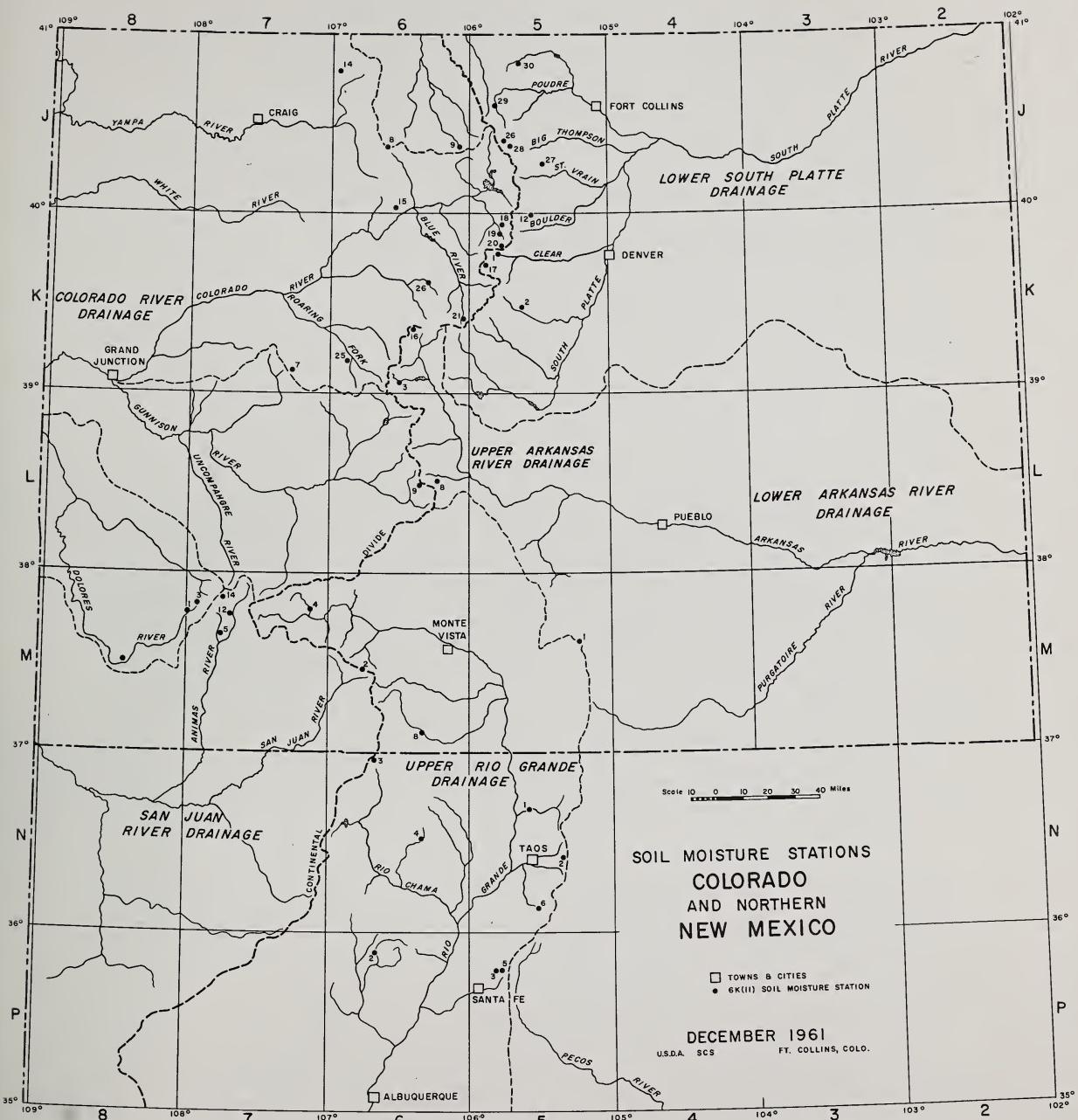
The following is a listing of snow courses and soil moisture stations for Colorado and New Mexico which are shown on maps on the interior pages.

LIST AND LOCATION OF SNOW COURSES AND SOIL MOISTURE STATIONS

No.	State	Name	Sec.	Twp.	Rge.	Elev.	No.	State	Name	Sec.	Twp.	Rge.	Elev.
<u>Gunnison River</u>													
6L1	C	Crested Butte	22	13S	86W	9000							
6L2	C	Park Cone	19	14S	82W	9700							
7K3	C	Alexander Lake	2	12S	95W	10000							
7K4	C	Mesa Lakes	26	11N	95W		6J8-*	C	Muddy Pass	21	5N	82W	9300
7M6	C	Ironton Park	29	43N	7W	9800	6J9-*	C	Willow Pass	30	5N	77W	9400
7K6	C	Park Reservoir	34	11S	91W	9500							
6L3	C	Porphyry Creek	19	49N	6E	10700							
7M8	C	Lake City	13	43N	4W	10300							
7K8	C	McClure Pass	1	11S	89W	9500							
7M15	C	Red Mountain	13	42N	8W	11000							
7L2	C	Blue Mesa	23	48N	5W	8700							
6L7	C	Tomichi	30	49N	5E	10500							
7L3	C	Long Gulch	2	49N	5½W	9000							
7L4	C	Keystone	31	51S	1W	9950							
7L5	C	Black Mesa Clim. Sta.	22	49N	5½W	9850							
<u>San Juan River</u>													
6M3	C	Upper San Juan	1	37N	1E	10000							
7M5	C	Cascade	13	39N	9W	8850							
7M11	C	Spud Mountain	32	40N	8W	10700							
7M12	C	Molas Lake	7	40N	7W	10500	6K16-*	C	Leadville	21	8S	79W	10600
7M13	C	Howardville	15	41N	7W	9800	6K2L-*	C	Lake Creek	21	11S	82W	10100
7M14	C	Mineral Creek	35	42N	8W	10300	6L9-*	C	King	30	49N	5E	10500
6M17	C	Wolf Creek Summit	6	37N	2E	11000	6L8-M	C	Garfield	33	50N	6E	9900
7M4	C	Silverton	10	41N	7W	9400							
<u>Dolores River</u>													
7M1	C	Rico	11	39N	11W	8700	5J16	C	Granby	11	2N	77W	9800
7M2	C	Telluride	6	42N	8W	8600	5K20-*	C	Hairpin	34	2S	75W	9400
7M3	C	Lizard Head	24	41N	10W	10300	5K18-M	C	Ranch Creek	22	1S	75W	9600
7M9	C	Trout Lake	8	41N	9W	9700	5K22-*	C	Vasquez Siphon	9	2S	75W	9200
<u>Rio Grande (Colorado)</u>													
6M1	C	Wolf Creek Pass	4	37N	2E	10000	5K26-*	C	Vail	13	5S	80W	8900
7M16	C	Upper Rio Grande	13	40N	4W	9350	6K25-*	C	Gore	2	1S	82W	8400
6M4	C	Silver Lakes	15	36N	5E	9600	6K27	C	Maroon	15	10S	85W	10500
6M5	C	River Springs	25	33N	6E	9300	6K27	C	Lift	18	11S	84W	8800
6M6	C	Summitville	30	37N	4E	11500	6K27	C	Placita	6	11S	88W	10300
6M7	C	Cumbres Pass	17	32N	5E	10000	6K27	C	Blue River	30	7S	77W	10500
7M17	C	Santa Maria	8	41N	2W	9700							
5M3	C	Culebra	Lat. 37°10'N 105°12'W		10000		6J14-M	C	Hahn's Peak	27	10N	85W	8500
5M1	C	LaVeta Pass	22	28S	70W	9300	7K7-*	C					
6M9	C	Platoro	22	36N	4E	9950	6K21-M	C					
6M14	C	Pool Table Mt.	19	41N	2E	10000	6K7-*	C	Mineral Creek	35	42N	8W	10300
6M15	C	Lake Humphrey	33	40N	1E	9300	7M12-M	C	Molas Lake	7	40N	7W	10500
6L6	C	Cochetopa Pass	12	45N	3E	10000	7M5-M	C	Cascade	13	39N	9W	8850
7M20	C	Porcupine	2	41N	3W	10400							
6M19	C	Hiway	5	37N	2E	10700							
6M18	C	Pass Creek	16	38N	2E	9200	7M3-M	C	Lizard Head	24	41N	10W	10300
6M20	C	Love Lake	6	39N	1W	10000	7M1-M	C	Rico	11	39N	11W	8700
							8M1-*	C	Dolores	36	38N	15W	7500
<u>Rio Grande (New Mexico)</u>													
5N1	NM	Red River Pass	8	28N	13E	9800							
5N2	NM	Taos Canyon	10	25N	15E	9000	5M1-M	C	LaVeta Pass	22	28S	70W	9300
5P1	NM	Aspen Grove	12	18N	10E	9100	7M4-*	C	Bristol View	26	41N	3W	8800
5N3	NM	Hematite Park	8	28N	15E	9500	6M2-*	C	Alberta Park	4	37N	2E	9800
5N4	NM	Tres Ritos	23	22N	13E	9000	6M8-*	C	Mogote	25	33N	6E	8600
6N1	NM	Payrole	16	28N	7E	10000							
6N2	NM	Chama Divide	Lat. 36°52' 106°40'		7750								
6N3	NM	Chamita	36°56'	106°10'	8500								
5N5	NM	Cordova	22	22N	13E	10100	5N1-M	NM	Red River Summit	8	28N	13E	9800
5P2	NM	Panchuela	27	19N	12E	8300	5N6-*	NM	Aqua Piedra	23	22N	13E	8800
5P3	NM	Big Tesuque	17	18N	11E	10000	6N3-M	NM	Chamita	5	26N	6E	8500
5P4	NM	Elk Cabin	8	17N	11E	8250	6N4-M	NM	Bateman	17	18N	11E	9300
5P5	NM	Rio En Medio	8	18N	11E	10400	5P3-M	NM	Big Tesuque	10	25N	15E	10000
6P1	NM	Quemazon	34	20N	5E	9300	5N2-M	NM	Taos Canyon	17	18N	11E	9000
6N4	NM	Bateman	5	26N	6E	9300	5P5-M	NM	Rio En Medio	17	18N	11E	10400
6P2	NM	Fenton Hill	18	19N	3E	8900	6P2-M	NM	Fenton Hill	18	19N	3E	8900
6P3	NM	Sandavol	1	18N	3E	9500							
6N6	NM	Capulin Peak	17	23N	2E	9000							
6N7	NM	Capulin	17	23N	2E	8800	*	-	Indicates soil moisture station only				
6N5	NM	Bluebird Mesa	5	21N	1E	8775	M	-	Indicates soil moisture station on snow course				
6P4	NM	Pajarito Peak	20	17N	1W	8700							
6P5	NM	Pajarito	20	17N	1W	8450							
6P6	NM	Bluebird	8	19N	2E								
<u>Rio Grande (Colorado)</u>													
<u>Rio Grande (New Mexico)</u>													
<u>Rio Grande (Colorado)</u>													
<u>Rio Grande (New Mexico)</u>													

* - Indicates soil moisture station only
M - Indicates soil moisture station on snow course





LIST OF COOPERATORS

The following organizations cooperate in snow surveys for the Colorado, Platte, Arkansas and Rio Grande watersheds. Many other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

STATE

Colorado State Engineer
New Mexico State Engineer
Nebraska State Engineer
Colorado Experiment Station
Rocky Mountain Forest and Range Experiment Station

FEDERAL

Department of Agriculture

Forest Service
Soil Conservation Service

Department of Interior

Bureau of Reclamation
Geological Survey
National Park Service
Indian Service

Department of Commerce

Weather Bureau

War Department

Army Engineer Corps

Atomic Energy Commission

PUBLIC UTILITIES

Colorado Public Service Company
Western Colorado Power Company
Public Service Company of New Mexico

MUNICIPALITIES

City of Denver
City of Boulder

WATER USERS ORGANIZATIONS

Arkansas Valley Ditch Association
Colorado River Water Conservation District

IRRIGATION PROJECTS

Farmers Reservoir and Irrigation Company
San Luis Valley Irrigation District
Santa Maria Reservoir Company
Costilla Land Company
Uncompahgre Valley Water Users' Association
Twin Lakes Reservoir and Canal Company

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water supply for irrigation,
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with the Snow Survey"*

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2



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WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
COLORADO and NEW MEXICO

UNITED STATES DEPARTMENT of AGRICULTURE--SOIL CONSERVATION SERVICE
and
COLORADO AGRICULTURAL EXPERIMENT STATION,
STATE ENGINEER of COLORADO
and STATE ENGINEER of NEW MEXICO

Data included in this report were obtained by the agencies named above in cooperation with the Bureau of Reclamation, U.S. Forest Service, National Park Service and other Federal, State, and private organizations.

|||||| AS OF |||||
APR. 1, 1962

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Cooperative Snow Survey and Water Supply Forecast Reports:

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Fortunately, most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from fore-knowledge of the runoff.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, about 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1400 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

By relating snow survey measurements taken over a period of years to spring-summer runoff during the same period, relationships have been developed which make it possible to forecast seasonal runoff several months in advance of occurrence. In order to make a forecast, once a forecast relationship has been developed, the maximum snow water content at previously selected key snow courses is usually entered in the forecast relationship. More accurate forecasts are often obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast relationships.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, streamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions.

PUBLISHED BY SOIL CONSERVATION SERVICE

<u>REPORTS</u>	<u>ISSUED</u>	<u>LOCATION</u>	<u>COOPERATING WITH</u>
RIVER BASINS			
COLORADO AND STATE OF UTAH			
—	MONTHLY (JAN.-JUNE)	SALT LAKE CITY, UTAH	UTAH STATE ENGINEER AND OTHER AGENCIES
COLUMBIA	MONTHLY (JAN.-MAY)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
UPPER MISSOURI AND STATE	MONTHLY (FEB.-JUNE)	BOZEMAN, MONTANA	MONT. AGR. EXP. STATION OF MONTANA
WEST-WIDE	OCT. 1, APR. 1, MAY 1	PORTLAND, OREGON	ALL COOPERATORS
STATES			
ALASKA	MONTHLY (MAR.-MAY)	PALMER, ALASKA	ALASKA S.C.D.
ARIZONA	SEMI-MONTHLY (JAN. 15 - APR. 1)	PHOENIX, ARIZONA	SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION
COLORADO AND NEW MEXICO	MONTHLY (FEB.-MAY)	FORT COLLINS, COLORADO	COLO. AGR. EXP. STATION COLO. STATE ENGINEER N. MEX. STATE ENGINEER
IDAHO	MONTHLY (FEB.-MAY)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
NEVADA	MONTHLY (JAN.-MAY)	RENO, NEVADA	NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES - DIVISION OF WATER RESOURCES
OREGON	MONTHLY (JAN.-JUNE)	PORTLAND, OREGON	ORE. AGR. EXP. STATION OREGON STATE ENGINEER
WASHINGTON	MONTHLY (FEB.-JUNE)	SPOKANE, WASHINGTON	WN. STATE DEPT. OF CONSERVATION
WYOMING	MONTHLY (FEB.-JUNE)	CASPER, WYOMING	WYOMING STATE ENGINEER

Copies of these various reports may be secured from:

Head, Water Supply Forecasting Section
Soil Conservation Service
P.O. Box 4170, Portland 8, Oregon

PUBLISHED BY OTHER AGENCIES

<u>REPORTS</u>	<u>ISSUED</u>	<u>AGENCY</u>
BRITISH COLUMBIA	MONTHLY (FEB.-JUNE)	COMPTROLLER, WATER RIGHTS BR., DEPT. OF LANDS AND FORESTS, PARLIAMENT BLDG., VICTORIA, B.C., CANADA
CALIFORNIA	MONTHLY (FEB.-MAY)	CALIF. DEPT. OF WATER RESOURCES, SACRAMENTO, CALIF.

FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND WATER SUPPLY FORECASTS
for
COLORADO RIVER, PLATTE RIVER
ARKANSAS RIVER AND RIO GRANDE
DRAINAGE BASINS

Issued

April 1, 1962

Report Prepared By
Jack N. Washichek, Snow Survey Supervisor
and
Don W. McAndrew, Assistant Snow Survey Supervisor
Fort Collins, Colorado

United States Department of Agriculture
Soil Conservation Service
and
Colorado Agricultural Experiment Station
Fort Collins, Colorado
and
State Engineer of Colorado
Denver, Colorado
and
State Engineer of New Mexico
Santa Fe, New Mexico

Issued By

Kenneth W. Chalmers
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Soil Conservation Service

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State Conservationist (N. Mex.)
Soil Conservation Service

J. E. Whitten
State Engineer
State of Colorado

Sherman S. Wheeler, Director
Colorado Agricultural
Experiment Station

S. E. Reynolds
State Engineer
State of New Mexico

General Series Paper No. 767
Colorado Agricultural Experiment Station

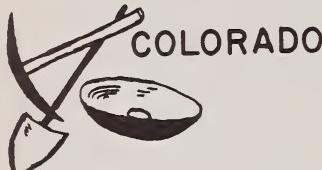
WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO

as of

APRIL 1, 1962

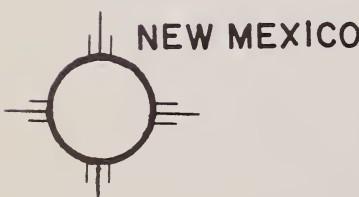


- * * * * * SNOW PACK DID NOT BUILD UP AS MUCH AS NORMALLY DURING *
 - * THE MONTH OF MARCH. *
 - * * * * * DUE TO THE PREVIOUS MONTH'S ABOVE NORMAL SNOW FALL, *
 - * ALL AREAS OF COLORADO AND NEW MEXICO CAN STILL EXPECT *
 - * AN ADEQUATE SUPPLY OF WATER THIS SUMMER. MOST *
 - * MOUNTAINS AND PLAINS HAVE GOOD SOIL MOISTURE. *
 - * * * * *



COLORADO

Colorado's prospects for water supplies this summer are better than any time since 1957. March did not add materially to the snow pack, but soils are wet and all streams are being forecast higher than normal. Reservoir storage is good except on the Arkansas. Streamflow on the Arkansas should be high enough to relieve any reservoir shortages. Streams are currently running normal or better.



NEW MEXICO

This year should see some relief in the water situation that has persisted in New Mexico. All streams are forecast normal or above and with good soil moisture this should be a good water supply year.

The main stem of the Rio Grande is forecast higher than any time since 1957 and should help replace some of the depleted reservoir storage. Valley soils are reported as fairly wet.

WATER SUPPLY OUTLOOK

THE MAP ON THIS PAGE INDICATES THE MOST PROBABLE WATER SUPPLY AS OF THE DATE OF THIS REPORT. ESTIMATES ASSUME AVERAGE CONDITIONS OF SNOW FALL, PRECIPITATION AND OTHER FACTORS FROM THIS DATE TO THE END OF THE FORECAST PERIOD. AS THE SEASON PROGRESSES ACCURACY OF ESTIMATES IMPROVE. IN ADDITION TO EXPECTED STREAMFLOW, RESERVOIR STORAGE, SOIL MOISTURE IN IRRIGATED AREAS, AND OTHER FACTORS ARE CONSIDERED IN ESTIMATING WATER SUPPLY. ESTIMATES APPLY TO IRRIGATED AREAS ALONG THE MAIN STREAMS AND MAY NOT INDICATE CONDITIONS ON SMALL TRIBUTARIES.

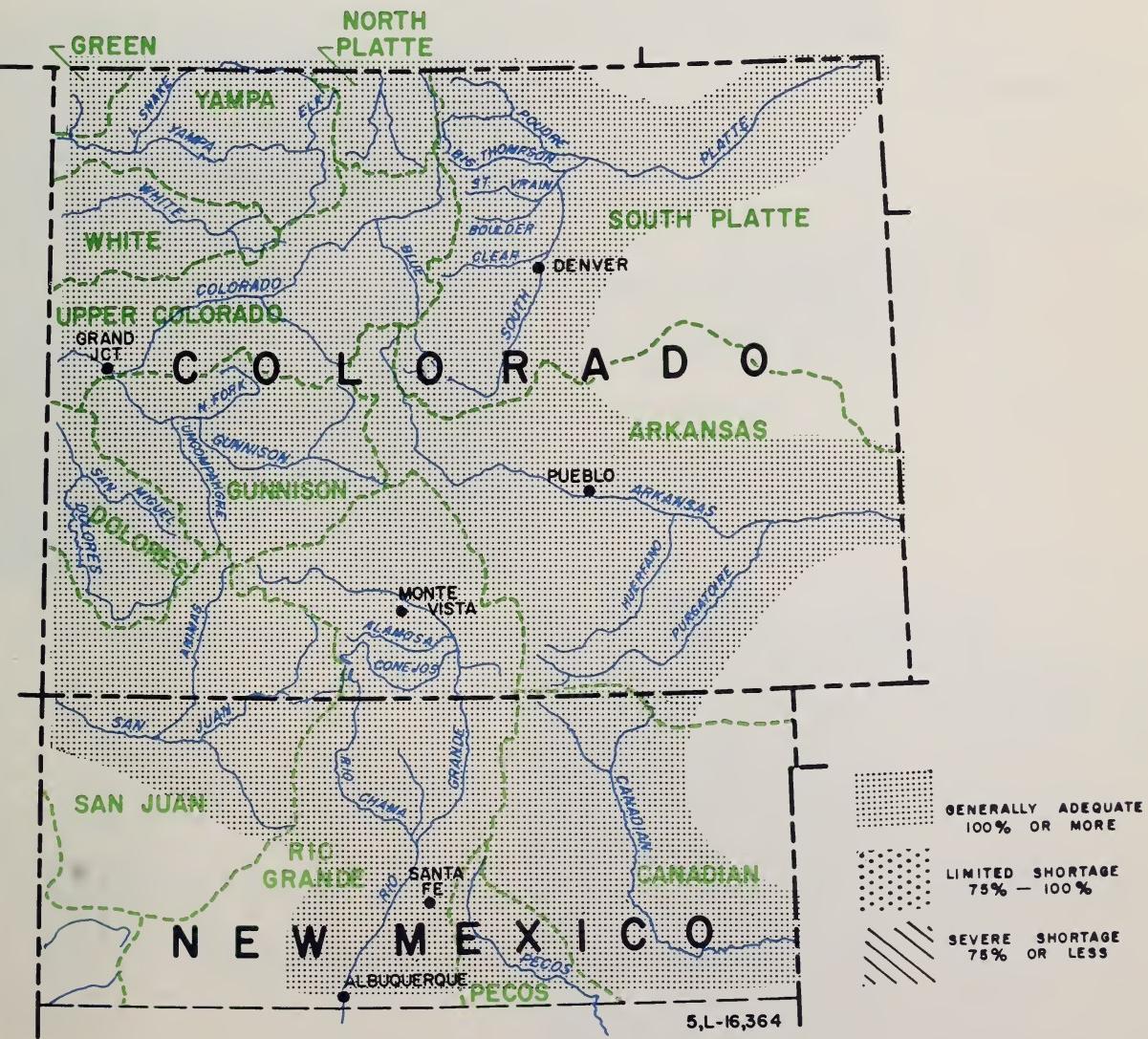


TABLE OF CONTENTS

WATER SUPPLY OUTLOOK BY MAJOR WATERSHED AREAS

WATERSHED I - SOUTH PLATTE RIVER WATERSHED

Describes water supply conditions in Fort Collins, Big Thompson, Longmont, Boulder Valley, Jefferson, Teller-Park, Douglas County, Morgan, Kiowa, West Arapahoe, West Adams, East Adams, Platte Valley, Southeast Weld, and West Greeley Soil Conservation Districts.

WATERSHED II - ARKANSAS RIVER WATERSHED

Describes water supply conditions in Lake County, Upper Arkansas, Fremont, Custer County Divide, Fountain Valley, Black Squirrel, Horse-Rush Creek, Central Colorado, Turkey Creek, Pueblo, Bessemer, Olney Boone, Cheyenne, Upper Huerfano, Stonewall, Spanish Peaks, Purgatoire, Branson Trinchera, Western Baca County, Southeastern Baca County, Two Buttes, Bent, Timpas, Northeast Prowers, Prowers, West Otero, East Otero, and Big Sandy Soil Conservation Districts.

WATERSHED III - RIO GRANDE WATERSHED (COLORADO)

Describes water supply conditions in Rio Grande, Center, Mosca, Hooper, Mt. Blanca, Sanches, and Culebra Soil Conservation Districts.

WATERSHED IV - RIO GRANDE WATERSHED (NEW MEXICO)

Describes water supply conditions in Lower Cebolla, Abiquiu-Vallecitos, Eastern Taos, Lindrith, Coyote-Canones, Espanola Valley, Pojoaque, Jemez, Santa Fe-Sandoval, Tijeras, Cuba, and Edgewood Soil Conservation Districts.

WATERSHED V - DOLORES, SAN JUAN, AND ANIMAS RIVERS WATERSHED

Describes water supply conditions in San Miguel Basin, Dove Creek, Dolores, Mancos, LaPlata, Pine River, San Juan, and Glade Park Soil Conservation Districts.

WATERSHED VI - GUNNISON RIVER WATERSHED

Describes water supply conditions in Delta, Gunnison, Cimarron, Shavano, and Uncompahgre Soil Conservation Districts.

WATERSHED VII - COLORADO RIVER WATERSHED

Describes water supply conditions in DeBeque, Lower Grand Valley, Bookcliff, Eagle County, Middle Park, Glade Park, Upper Grand Valley, Plateau Valley, South Side, and Mt. Sopris Soil Conservation Districts.

WATERSHED VIII - YAMPA, WHITE AND NORTH PLATTE RIVERS WATERSHED

Describes water supply conditions in Yampa, Moffat, West Routt, East Routt, North Park, Upper White River, Lower White River, and Douglas Creek Soil Conservation Districts.

WATERSHED IX - LOWER SOUTH PLATTE RIVER WATERSHED

Describes water supply conditions in Sedgwick, South Platte, Haxton, Peetz, Padroni, Morgan Rock Creek and Yuma Soil Conservation Districts.

YOUR



WATER

SUPPLY



UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

YOUR WATER SUPPLY

R. D. Anderson¹

Water supplies for irrigation this year in Colorado will vary from slightly above normal to 150% of normal. The San Juan, Animas, San Miguel and Dolores drainages will be from normal to 10% above normal. All other drainages will be from 125 to 150% of normal.

This favorable outlook for irrigation water is due to three things. These are: above normal snow pack, excellent soil moisture, and much greater reservoir storage than last year.

Before the irrigation season starts, find out from your irrigation or ditch company about how much water you are likely to receive and for how long over the season it will be available. KNOW FOR SURE HOW MUCH WATER IS DELIVERED TO YOUR FARM.

On the basis of this generally favorable irrigation water supply season, you should consider the following:

1. Acreages of high water using crops such as alfalfa, irrigated pasture, corn and sugar beets might be increased over last year. You can get assistance from your Soil Conservation Service Technician or County Agent in planning kinds and acres of crops with your expected water supply.
2. Maintain the soil fertility levels high enough so that lack of needed plant nutrients does not lower production.
3. Do not over-irrigate or waste water because it is plentiful as this may:
 - a. Leach out needed plant nutrients.
 - b. Increase seepage and salt problems or create new seep areas.
 - c. Increase erosion.
4. Consider doing some or all of the following if needed on your farm to make better use of available water:
 - a. Keep ditches clean.
 - b. Replace leaky, worn out structures such as gates and turnouts.
 - c. Line leaky ditches.
 - d. Do not keep irrigation sets on longer than necessary to replace the used water in the root zone area of each crop. Know the root zone depths and water holding capacities of your soils.
 - e. Do not use erosive heads of water.

YOUR SOIL CONSERVATION SERVICE TECHNICIAN CAN HELP YOU ON ALL OF THESE ITEMS.

¹ R. D. Anderson, State Soil Conservationist, Soil Conservation Service, Denver, Colorado, Water Supply Outlook and Federal-State Private Cooperative Snow Survey for Colorado and New Mexico, April 1, 1962.

**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

SOUTH PLATTE RIVER WATERSHED IN COLORADO

as of
April 1, 1962

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO

SNOW COVER



Snow cover over the entire South Platte watershed averages 115% of normal. Warm temperatures and below normal snow fall during the past month decreased the low elevation snow pack since March 1. Water content of the snow pack ranges from 75% of normal at low elevations to 160% at the higher levels. Boulder Creek is the only tributary with below normal snow pack.

SOIL MOISTURE

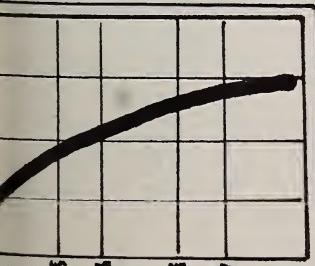
Soil moisture in the South Platte watershed is near record high. This condition will increase the flow expected from the melting snows.

RESERVOIR STORAGE



Water stored in the reservoirs on the South Platte watershed is about 140% of normal. This water will be an excellent supplement to the spring runoff for irrigation this summer.

EXPECTED STREAMFLOW



Above average streamflow, soil moisture and reservoir storage are all bright prospects for good water supply this coming season. Tributaries to the South Platte River vary from 107% of normal on the Saint Vrain to 130% on the Big Thompson and Clear Creek Rivers.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

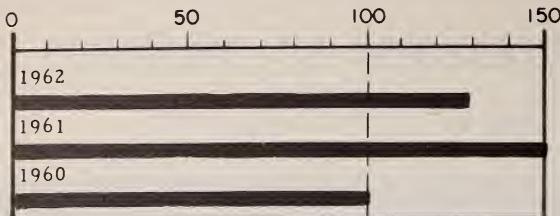
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K. W. Chalmers, State Conservationist,
Colorado

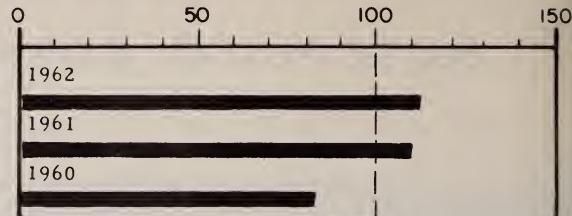
R. G. Wilson, Area Conservationist,
Littleton, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

CACHE LA POUDRE - BOULDER



CLEAR CREEK - UPPER SOUTH PLATTE



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Antero	33.0	15.7	15.7	14.4
Barr Lake	32.2	24.9	28.7	21.3
Black Hollow	8.0	5.1	2.1	3.4
Boyd Lake	44.0	4.1	33.2	17.5
Cache La Poudre	9.5	8.6	7.2	6.6
Carter Lake *	108.9	102.6	85.6	64.8
Chambers Lake	8.8	6.6	2.0	2.1
Cheeseman	79.0	77.9	70.0	49.2
Cobb Lake	34.3	20.4	13.0	5.6
Eleven Mile	81.9	97.8	97.8	69.2
Fossil Creek	11.6	8.5	9.5	7.1
Gross	43.1	32.0	18.4	--
Halligan	6.4	4.6	4.9	2.0
Horsetooth *	143.5	135.1	112.2	99.4
Lake Loveland	14.3	7.8	7.8	5.7
Lone Tree	9.2	7.3	6.1	6.5
Mariano	5.4	4.8	4.0	2.6
Marshall	10.3	7.1	2.8	2.2
Marston	18.9	15.6	12.0	14.7
Milton	24.4	14.2	15.9	10.8
Standley	18.5	14.5	11.0	10.9
Terry Lake	8.2	5.9	5.4	4.4
Union	12.7	12.0	8.8	6.9
Windsor	18.6	MEASURED FIRST 14.0 MONTH	11.2	9.8

*Shorter Period.

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE. DEP.		WINTER AVE. DEP.	
	Dec	Feb	Dec	Feb
Upper South Platte	8.07	+3.71	2.06	+0.47

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alpine Camp	7.0	3.3	1.3	1.2
Beaver Dam	6.0	4.6	0.4	1.0
Feather	6.0	0.6	0.1	0.7
Guard Station	7.0	2.7	0.4	1.0
Hoop Creek	6.0	5.1	0.5	1.4
Hoosier Pass	7.0	4.6	0.1	1.7
Kenosha Pass	7.0	1.6	0.1	1.7
Laramie Road	7.0	—	—	1.7
Two Mile	8.0	5.4	0.7	2.6
Clear Creek	8.0	4.2	0.5	1.3

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT. APRIL THROUGH SEPTEMBER)

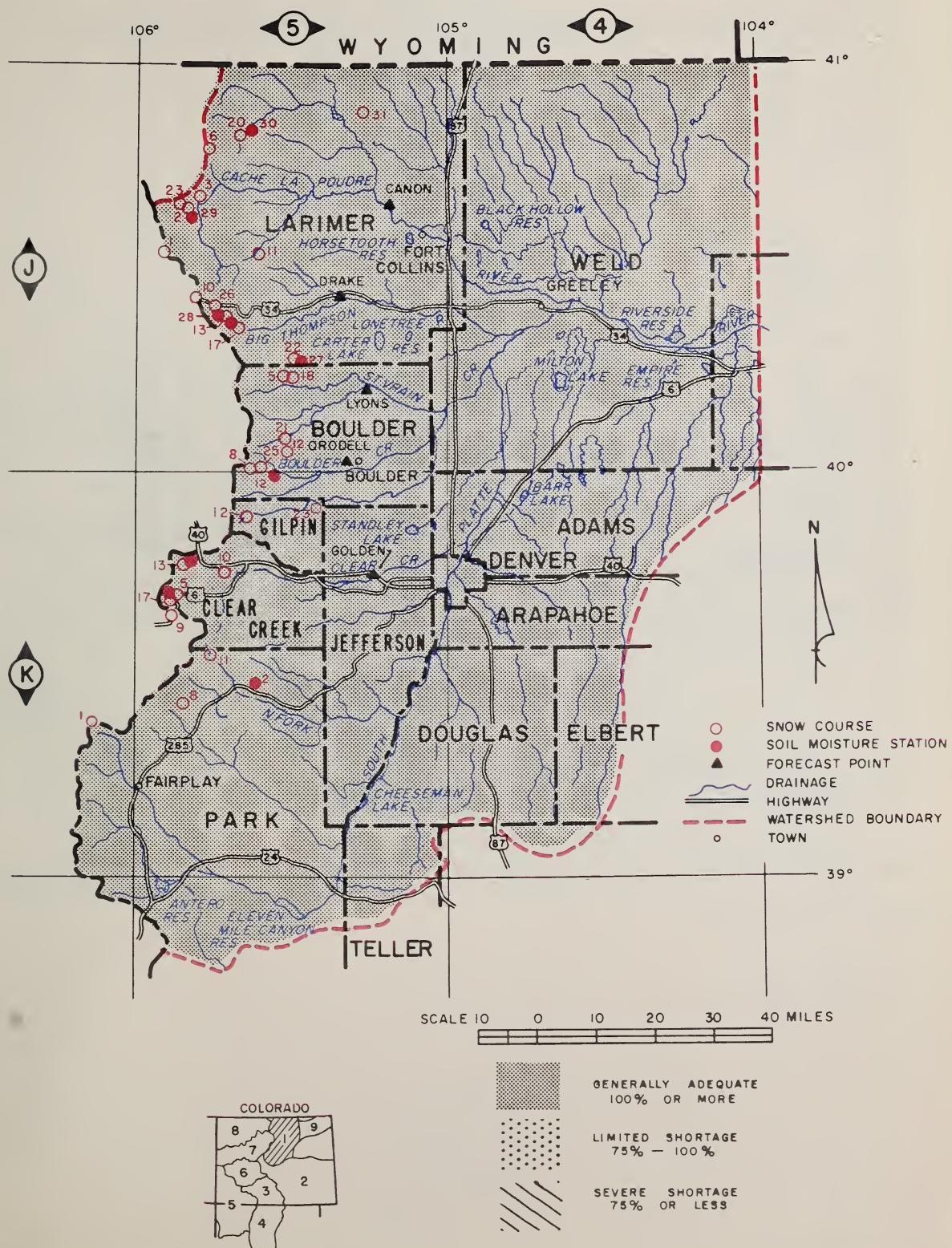
STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Big Thompson at Drake (2)	142	134	106
Boulder at Orodell	64	116	55
Cache La Poudre at Canon(1)	210	111	189
Clear Creek at Golden (3)	180	130	137
Saint Vrain at Lyons	93	111	84

(1) Observed flow minus diversions from Michigan, Colorado and Laramie rivers, plus diversions for irrigation and municipal use above station.

(2) Observed flow plus by-pass to power plants.

(3) Observed flow minus diversions through Jones Tunnel.

SOUTH PLATTE RIVER WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
SOUTH PLATTE RIVER AND TRIBUTARIES						
Baltimore	5K23	3/30	31	9.1	7.8	--
Berthoud Falls	5K13	3/30	48	13.2	10.7	14.6*
Big South	5J3	4/1	9	2.1	2.6	2.7
Boulder Falls	5J25	3/30	47	12.5	11.6	15.4*
Cameron Pass	5J1	3/29	99	38.9	22.3	24.9
Chambers Lake	5J2	4/1	37	10.1	6.7	8.8
Copeland Lake	5J18	3/29	13	4.0	4.3	5.3*
Deadman Hill	5J6	3/28	56	17.2	15.4	16.8
Deer Ridge	5J17	3/31	29	9.4	4.3	5.9*
Empire	5K10	3/30	36	9.7	8.0	7.8*
Geneva Park	5K11	NS	--	--	2.6	4.2*
Grizzly Peak (B)	5K9	3/27	64	21.3	16.3	18.9
Hidden Valley	5J13	3/30	53	16.1	10.3	12.4
Hoosier Pass	6K1	3/30	49	15.3	10.4	13.1
Hour Glass Lake	5J11	3/28	26	6.9	6.2	9.2
Jefferson Creek	5K8	3/28	37	11.7	8.4	9.8
Lake Irene (B)	5J10	3/27	74	31.7	14.1	22.9
Long's Peak	5J22	3/31	43	11.8	7.3	11.7*
Lost Lake	5J23	4/1	47	13.1	8.5	11.8*
Loveland Pass	5K5	3/29	55	19.2	15.3	15.8
Loveland Lift No. 1	5K24	3/27	88	30.7	21.5	--
Pine Creek	5J31	3/29	6	2.3	5.2	--
Red Feather	5J20	3/29	29	7.6	8.9	8.8
Two Mile	5J26	3/30	70	23.3	11.9	15.3*
University Camp	5J8	3/30	65	21.5	16.5	24.5
Ward	5J21	3/29	25	6.8	7.5	7.1*
Wild Basin	5J5	3/30	41	10.1	11.1	15.0

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

(A) - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by
 Jack N. Waashicke and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

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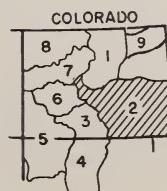
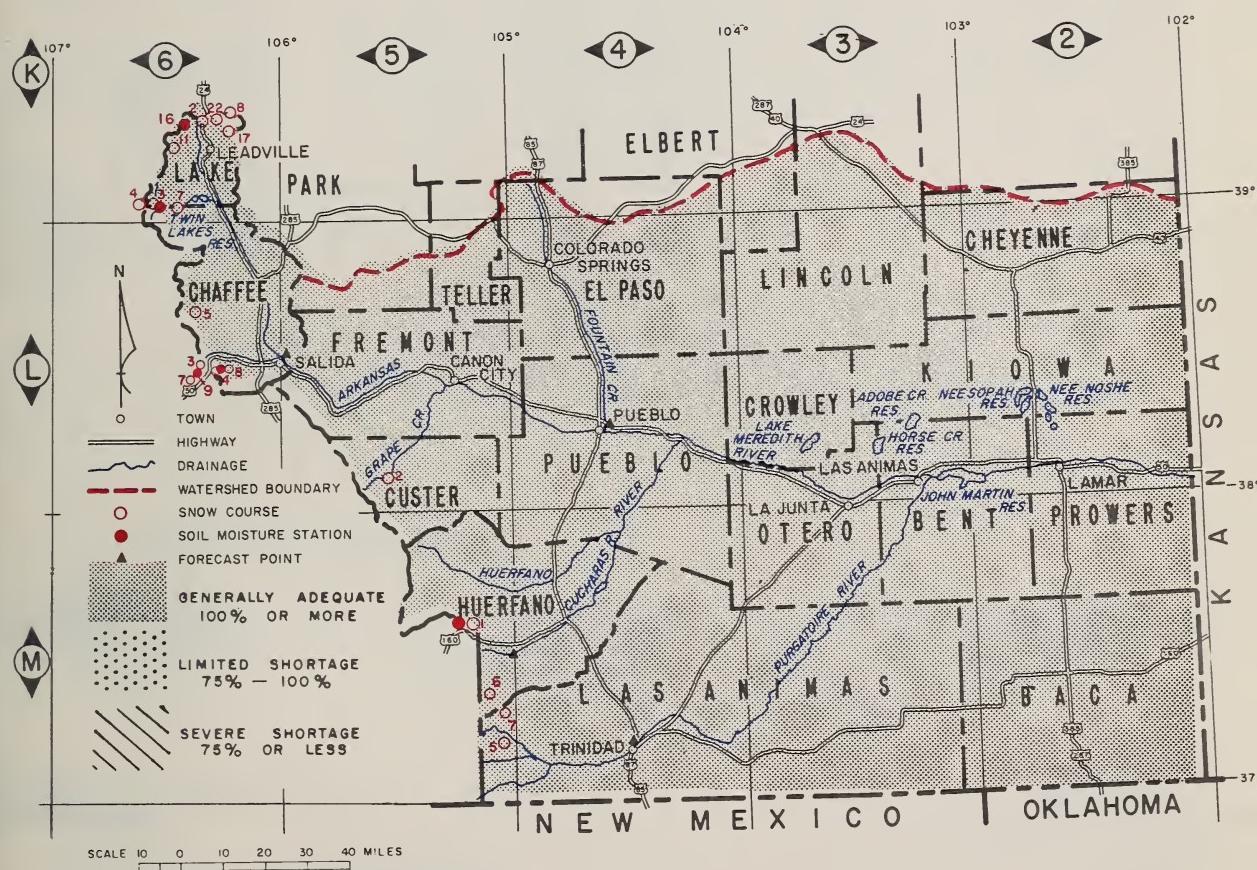
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SOIL CONSERVATION SERVICE

Snow Survey
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OFFICIAL BUSINESS

ARKANSAS RIVER WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
ARKANSAS RIVER						
Blue Lakes	5M6	NS	--	--	--	--
Bigelow Divide	5L3	3/31	31	5.9	--	--
Bourbon	5M5	3/28	33	6.7	9.7	--
Cooper Hill	6K23	3/24	58	14.1	8.6	--
Cucharas Pass	5M7	NS	--	--	--	--
East Fork	6K17	3/28	40	11.2	7.2	9.9*
Four Mile Park	6K7	3/28	28	8.0	4.5	4.0
Fremont Pass	6K8	3/28	66	21.1	14.3	16.9
Garfield	6L8	3/28	52	18.4	14.9	--
LaVeta Pass (B)	5M1	3/29	28	9.2	10.0	8.1
Monarch Pass	6L4	3/28	65	22.7	18.4	18.6
St. Elmo (A)	6L5	3/31	60	17.4	9.7	12.5*
Tennessee Pass	6K2	3/28	45	12.8	8.6	10.0
Tomichi	6L7	3/28	46	14.4	10.4	--
Twin Lakes Tunnel	6K3	3/30	47	18.5	6.8	10.9
Westcliffe	5L2	3/30	29	4.7	8.2	6.0*

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

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 Colorado State University
 Ft. Collins, Colorado

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OFFICIAL BUSINESS

**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

**ARKANSAS RIVER WATERSHED IN COLORADO
as of**

April 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER



Snow cover on the Arkansas River watershed decreased since March 1. The entire watershed is still 130% of the average for April 1. The basin is divided between excellent snow cover in the Northern areas to below normal snow pack in the South.

SOIL MOISTURE



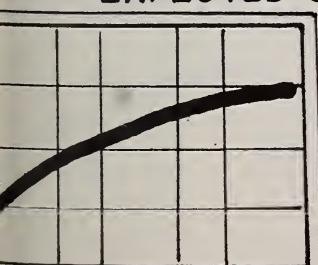
The soil moisture over the entire basin remains high and is better than last year. This condition will add to the river flows this summer. Soil moisture in the valley is also reported as fair to good.

RESERVOIR STORAGE



Water held in storage on the Arkansas River is much better than last year and about 90% of normal. The Arkansas River is flowing near normal and should contribute some to storage.

EXPECTED STREAMFLOW



The Arkansas River and its tributaries will flow average to much above this season. The main stem is expected to flow 160% of normal. The Purgatoire and Cucharas Rivers should produce near normal water supplies this season.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

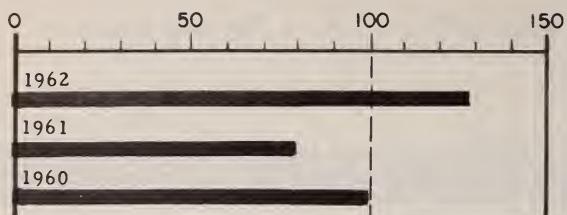
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K. W. Chalmers, State Conservationist,
Colorado

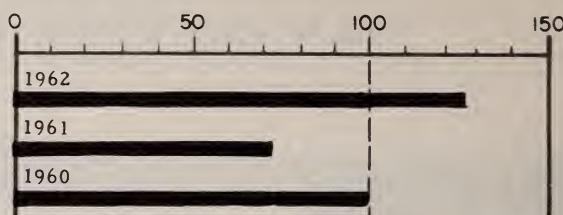
Dearl B. Beach, Area Conservationist,
Colorado Springs, Colorado
Will D. McCorkle, Area Conservationist,
Lamar, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

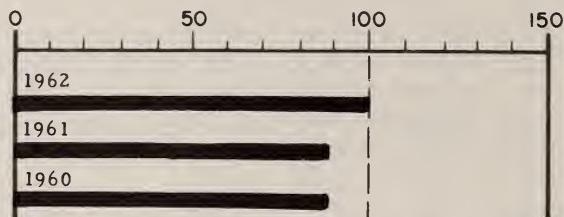
ARKANSAS ABOVE CADDOA DAM



ARKANSAS BELOW CADDOA DAM



PURGATOIRE - CUCHARAS - HUERFANO



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Adobe Creek	61.6	0	0	22.0
Clear Creek	11.4	10.4	5.5	5.8
Cucharas	40.0	8.0	2.1	4.5
Great Plains	150.0	39.9	22.9	50.8
Horse Creek	26.9	12.3	0	7.3
John Martin	366.6	34.0	20.9	58.8
Meredith	41.9	26.0	6.1	14.5
Model	15.0	4.8	5.1	2.5
Sugar Loaf	17.4	10.8	1.4	8.1
Twin Lakes	57.9	30.6	9.3	22.7

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Garfield	7.0	4.1	3.2	3.5
King	8.0	5.1	2.7	3.9
Lake Creek	6.0	3.8	2.5	3.5
LaVeta Pass	8.0	7.4	7.4	5.6
Leadville	7.0	0.5	0.4	1.2

ALL PROFILES 4 FEET DEEP

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER		WINTER AVE. DEP.	
	AVE.	DEP.		
Arkansas	8.36	+3.49	2.52	+.37

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

STREAMFLOW FORECAST (1,000 AC. FT.)

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Arkansas at Pueblo (1)	550	160	342
Arkansas at Salida (1)	540	159	339
Cucharas near LaVeta	16	114	14
Purgatoire at Trinidad	52	100	52

(1) Observed flow plus change in storage in Clear Creek, Twin Lakes, and Sugar Loaf Reservoirs minus diversions through Busk-Ivanhoe and Twin Lake Tunnels and Ewing, Fremont Pass, Wurtz and Columbine Ditches.

**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

UPPER RIO GRANDE WATERSHED IN COLORADO

as of
April 1, 1962

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO

SNOW COVER



High elevation snow pack is much above normal while medium to low elevation snow has not increased much during the last month.

Head water areas of the Rio Grande, Alamosa and Conejos Rivers have high snow while snow pack on the Sangre de Cristo is barely normal.

Snow pack over the entire basin is about 145% of normal.

Moisture held in the soil is excellent. Some soils are reported as almost saturated. Some snow melted at low elevations adding to the soil moisture. Actually soil moisture is 213% of average.

SOIL MOISTURE

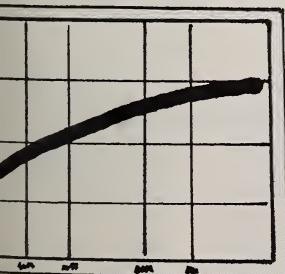


RESERVOIR STORAGE



Reservoir storage is just about normal. None of the reservoirs are anywhere near full, but will probably fill during the runoff period.

EXPECTED STREAMFLOW



Water supplies should be adequate with some storage possible from expected runoff. The only river not expected to flow much above average is the Culebra. Snow cover in this area is light.

Forecasts range from 170% of normal on the Upper Rio Grande to 100% on Culebra.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

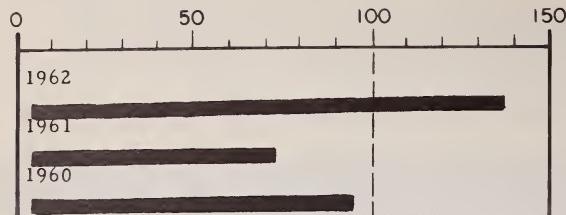
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K. W. Chalmers, State Conservationist,
Colorado

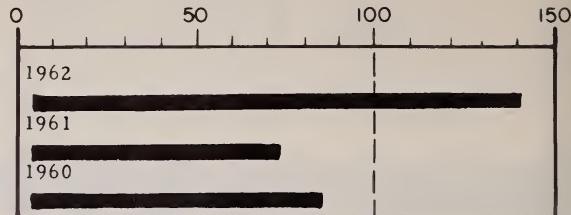
Benny Martin, Area Conservationist,
Monte Vista, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

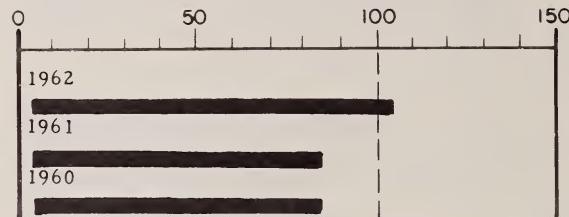
RIO GRANDE



ALAMOSA - CONEJOS



SANGRE DE CRISTO STREAMS



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Continental	26.7	6.2	4.9	7.8
Platoro	60.0	3.4	4.0	4.6
Rio Grande	45.8	12.8	7.9	12.6
Sanchez	103.2	12.5	7.0	9.9
Santa Maria	45.0	4.2	3.7	7.8
Terrace	17.7	8.2	3.2	3.0

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE. DEP.		WINTER AVE. DEP.	
	AVE.	DEP.	AVE.	DEP.
Rio Grande (Colo.)	8.26	+3.74	1.3	-.14

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

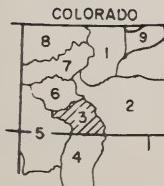
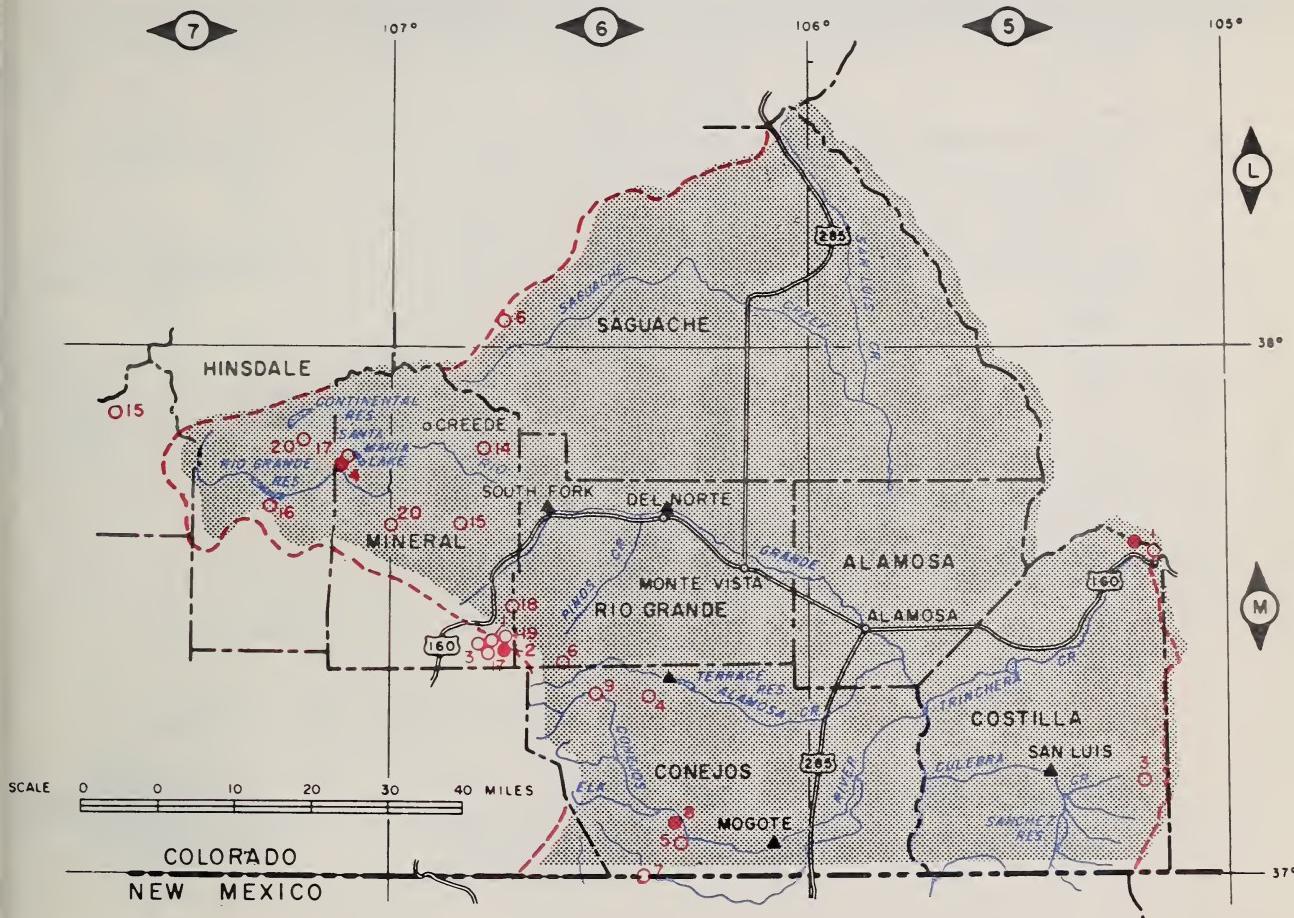
STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Alamosa above Terrace	110	155	71
Conejos near Mogote	210	137	197
Culebra at San Luis (2)	24	100	24
Rio Grande nr. Del Norte (1)	750	153	491
Rio Grande at Thirty Mile Bridge (1)	190	170	112

ALL PROFILES 4 FEET DEEP

(1) Observed flow plus changes in storage in Santa Maria, Rio Grande, and Culebra Rivers.

(2) Observed flow plus changes in storage in Sanchez Reservoir.

UPPER RIO GRANDE WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES) LAST YEAR	AVERAGE 1943 - 57
RIO GRANDE IN COLORADO						
Cochetopa Pass	6L6	3/26	28	5.7	6.2	5.4*
Hiway	6M19	3/28	92	33.7	20.9	--
Lake Humphreys	6M15	3/28	38	11.3	4.1	6.3*
Pass Creek	6M18	3/28	53	17.7	8.3	--
Pool Table (A)	5M14	3/28	46	15.6	5.9	6.2*
Porcupine (A)	7M20	3/28	62	21.1	8.4	12.7*
Red Mountain Pass (B)	7M15	3/30	104	39.0	29.6	30.3*
Santa Maria	7M17	3/29	29	6.1	3.4	4.7
Upper Rio Grande	7M16	3/28	46	12.1	9.0	7.3
Wolf Creek Pass	6M1	3/28	96	40.8	19.5	30.5
Wolf Creek Summit (B)	7M17	3/28	111	38.1	24.7	29.5*
ALAMOSA RIVER						
Silver Lakes	6M4	3/28	36	9.5	6.7	6.1
Summitville (A)	6M6	3/28	83	29.9	16.9	20.5
CONEJOS RIVER						
Cumbres Pass	6M7	3/30	85	26.8	12.5	20.2
Platoro (A)	6M9	3/28	90	34.6	NS	18.7*
River Springs	6M5	3/28	32	9.2	6.2	7.3
SANGRE DE CRISTO RANGE (Colo.)						
Blue Lakes (B)	5M6	NS	--	--	--	--
Cucharas Pass (B)	5M7	NS	--	--	--	--
Culebra	5M3	4/1	38	9.6	9.3	9.9
LaVeta Pass	5M1	3/29	28	9.2	10.0	8.1

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by
 Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

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OFFICIAL BUSINESS

**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

RIO GRANDE WATERSHED IN NEW MEXICO

as of
April 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER



Snow cover varies from slightly above normal at low to medium elevations to much above normal at the high elevations. The snow pack in New Mexico is 138% of the 15-year normal while in Colorado snow is 145% of average. Snow increase was greater in New Mexico during March than in Colorado.

SOIL MOISTURE



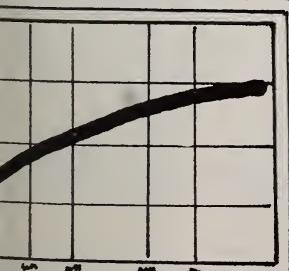
Soil moisture in the mountain areas of both states is excellent. Reporting stations indicate soils contain far more moisture than last year and considerably more than normal. This will increase the runoff this summer. Valley soils are reported as fair to good.

RESERVOIR STORAGE



Carry-over storage is below average and less than last year at this time. This condition should improve this year. Some storage should be possible with expected runoff.

EXPECTED STREAMFLOW



Streamflow should be more than adequate this summer. All streams are forecasted above normal. Because of the choice of 15-year normals, forecasts are much above average. Using Elephant Butte normals, flow of Rio Grande at San Marcial is forecasted at 132% while using 15-year, 1943-57 normal, expected flow is 212%. Flow on Canadian and Pecos Rivers should be good.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

ISSUED BY: SOIL CONSERVATION SERVICE

Courtney A. Tidwell, State Conservationist,
New Mexico

H. M. Cavett, Area Conservationist,
Santa Fe, New Mexico

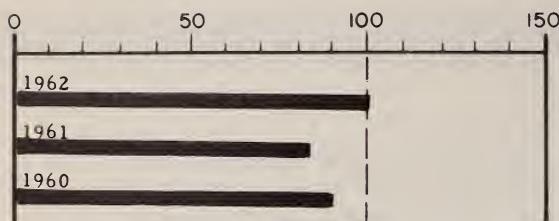
WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

RESERVOIR STORAGE (1,000 AC. FT.)

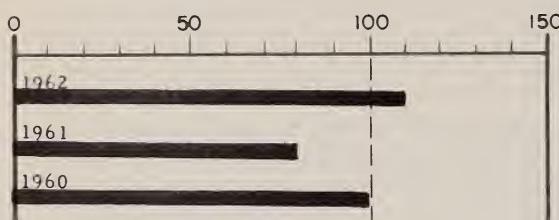
RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Alamorgordo	122.1	85.0	122.1	47.4
Caballo	344.0	69.2	83.2	155.7
Elephant Butte	2206.8	347.3	355.2	581.2
El Vado	194.5	2.5	6.5	34.9
McMillan-Avalon	44.5	34.0	36.0	13.7
Red Bluff (Tex)	307.0		122.0	81.1
Conchas	600.0	269.9	279.4	262.5

MEASURED FIRST OF MONTH

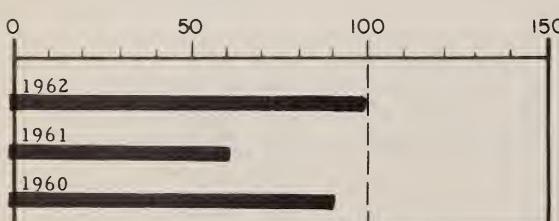
RIO CHAMA



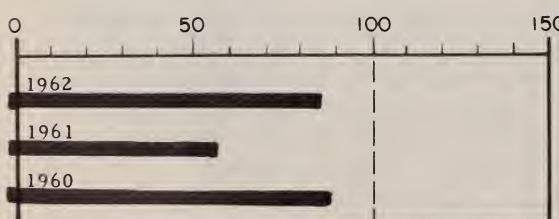
UPPER RIO GRANDE



MIDDLE RIO GRANDE



LOWER RIO GRANDE



PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE. DEP.		WINTER AVE. DEP. Dec-Feb	
	Ave.	Dep.	Ave.	Dep.
Lower Rio Grande	5.52	+1.84	1.32	+.10
Middle Rio Grande	9.05	+2.72	3.67	+.36
Upper Rio Grande	8.26	+3.74	1.37	-.14

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alberta Park (Colo)	9.0	--	0.9	2.5
Aqua Piedra	7.2	4.3	5.0	2.7
Bateman	6.7	3.4	1.7	2.9
Big Tesuque	3.7		0.9	1.7
Bristol View(Colo)	7.0	6.0	NS	1.8
Chamita (New Mex.)	8.0	5.4	NS	3.1
Fenton Hill	6.5		6.5	—
Mogote (Colo)	7.0	6.7	0.6	2.0
Red Summit	4.8	0.3	0.7	0.9
Rio En Medio	3.5		0.2	0.2
Taos Canyon	3.3	6.7	3.0	2.1

ALL PROFILE 3-4 FEET DEEP

STREAMFLOW FORECAST(1,000 AC. F.)

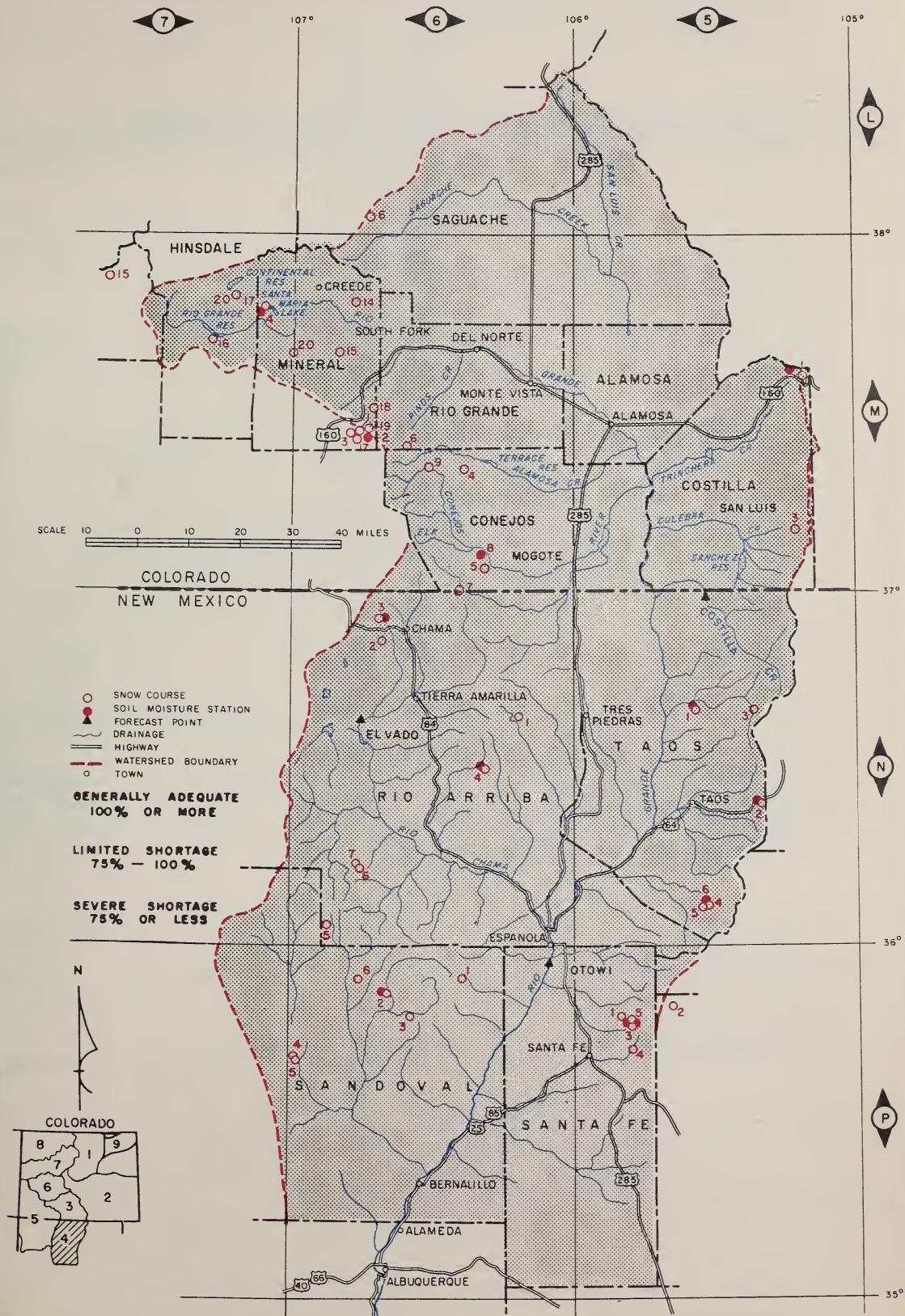
STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Costilla at Costilla	29	107	27
Pecos at Pecos	75	156	48
Rio Chama nr. La Puenta	300	143	210
Rio Grande at Otowi (10)*	1195	189	633
Rio Grande at San Marcial (10)*	920	212	434

Rio Grande at San Marcial is Forecast at 132% of the Elephant Butte Irrigation District's Normal.

(10) Observed flow plus changes in storage in Santa Maria, Rio Grande, Continental, Terrace, Sanchez, Platotoro and El Vado Reservoirs.

* Rio Grande at Otowi and Rio Grande at San Marcial Forecast and Average Mar-July inclusive.

RIO GRANDE WATERSHED IN NEW MEXICO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
RIO GRANDE (COLORADO & NEW MEXICO)						
Cochetopa Pass (Colorado)	6L6	3/26	28	5.7	6.2	5.4*
Culebra	5M3	4/1	38	9.6	9.3	9.9
Cumbres Pass	6M7	4/1	85	26.8	12.5	20.2
Hiway	6M19	3/28	92	33.7	20.9	--
Lake Humphreys	6M15	3/28	38	11.3	4.1	6.3*
LaVeta Pass	5M1	3/29	28	9.2	10.0	8.1
Pass Creek	6M18	3/28	53	17.7	8.3	--
Platoro (A)	6M9	3/28	90	34.6	NS	18.7*
Pool Table (A)	6M14	3/28	46	15.6	5.9	6.2*
Porcupine (A)	7M20	3/28	62	21.1	8.4	12.7*
River Springs	6M5	3/28	32	9.2	6.2	7.3
Santa Maria	7M17	3/29	29	6.1	3.4	4.7
Silver Lakes	6M4	3/28	36	9.5	6.7	6.1
Summitville	6M6	3/28	83	29.9	16.9	20.5
Upper Rio Grande	7M16	3/28	46	12.1	9.0	7.3
Wolf Creek Pass	6M1	3/28	96	40.8	19.5	30.5
Wolf Creek Summit	6M17	3/28	111	38.1	24.7	29.5*
Aspen Grove (New Mexico)	5P1	3/29	19	5.8	4.6	2.7
	6N4	2/28	48	12.5	17.3	11.9*
Big Tesuque	5P3	3/29	21	5.6	5.9	4.5
Chama Divide	6N2	3/30	10	3.5	1.5	1.7
Chamita	6N3	3/30	37	10.5	8.5	8.5
Cordova	5N5	3/26	46	13.3	11.7	11.1
Elk Cabin	5P4	3/29	8	3.2	1.7	2.4*
Fenton Hill	6P2	NS	--	--	3.7	2.3*
Hematite Park	5N3	3/30	19	5.5	4.5	4.4
Panchuela	5P2	4/1	14	4.1	2.7	1.4
Payrole	6N1	3/29	37	9.3	NS	7.9
Quemazon	6P1	3/30	42	12.3	13.9	5.7*
Red River	5N1	3/30	32	9.4	5.5	6.9
Rio En Medio	5P5	3/29	37	10.6	6.6	5.8*
Taos Canyon	5N2	3/30	23	7.5	2.4	5.1
NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)						
Tres Ritos SURVEY	5N4	3/27	24	7.1	6.8	4.2
(A) - AIR OBSERVED						
(B) - ON ADJACENT DRAINAGE						

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
SAN MIGUEL - DOLORES - ANIMAS - SAN JUAN
WATERSHEDS IN COLORADO & NEW MEXICO**

as of

April 1, 1962

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO

SNOW COVER



Snow pack increased normally during March. As of April 1 snow pack over these drainages is excellent. Low elevation snow is not as high percentage wise as the higher elevation snow pack, but still above normal.

SOIL MOISTURE



Soil moisture in the mountain areas is excellent and should contribute to the spring runoff. Moisture in the valleys is reported as good. Some melting has already taken place at lower elevations.

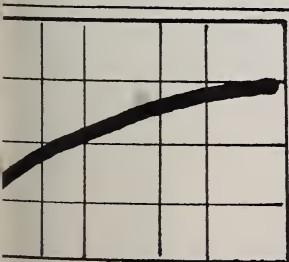
RESERVOIR STORAGE



Storage in Vallecito Reservoir is 64,000 acre feet. This is more water in storage than any time since 1958. Groundhog contains 6,000 acre feet compared to 4,000 last year and a normal of 7,000 acre feet.



EXPECTED STREAMFLOW



Streamflows will be adequate for all agricultural use this summer.

Streams in these basins should flow in the vicinity of 140% of normal. Streamflow is about normal currently with some melt already occurring.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

Benny Martin, Area Conservationist,
Monte Vista, Colorado

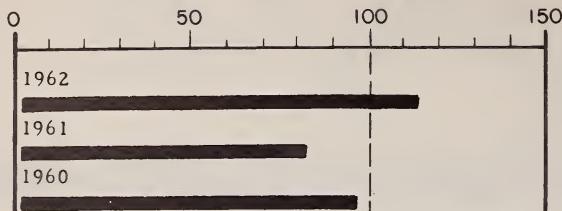
E. A. Nicholson, Area Conservationist *
Grand Junction, Colorado

C. A. Tidwell, State Conservationist,
New Mexico

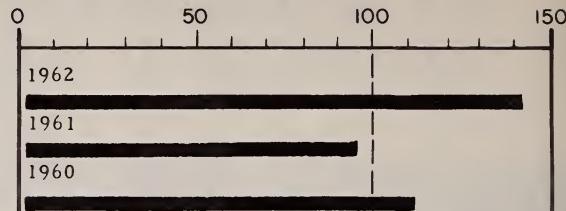
J. B. Christy, Area Conservationist
Albuquerque, N. M.

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

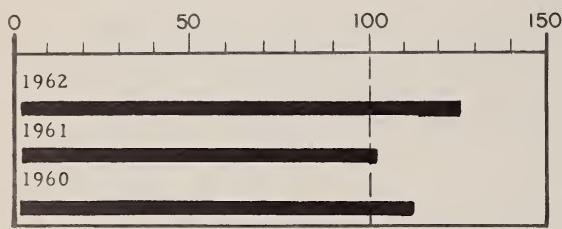
SAN JUAN



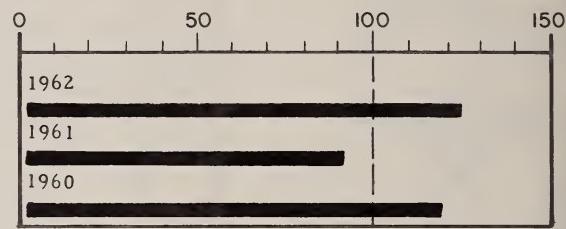
PIEDRA-PINOS-FLORIDA



DOLORES



ANIMAS-LA PLATA



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Groundhog	21.7	6.0	5.0	7.0
Vallecito	126.3	64.0	44.4	40.7

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Cascade	7.0	5.0	NS	5.6
Dolores	7.0	2.6	4.8	1.8
Lizard Head	7.0	5.4	4.4	3.6
Mineral Creek	7.0	4.8	NS	4.2
Molas Lake	7.0	2.2	NS	2.7
Rico	7.0	4.9	3.9	2.9

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE. DEP.		WINTER Dec-Feb.	
	8.17	+2.19	3.93	- .78
Dolores	11.76	+4.04	5.92	+ .53
San Juan				

PRELIMINARY U. S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

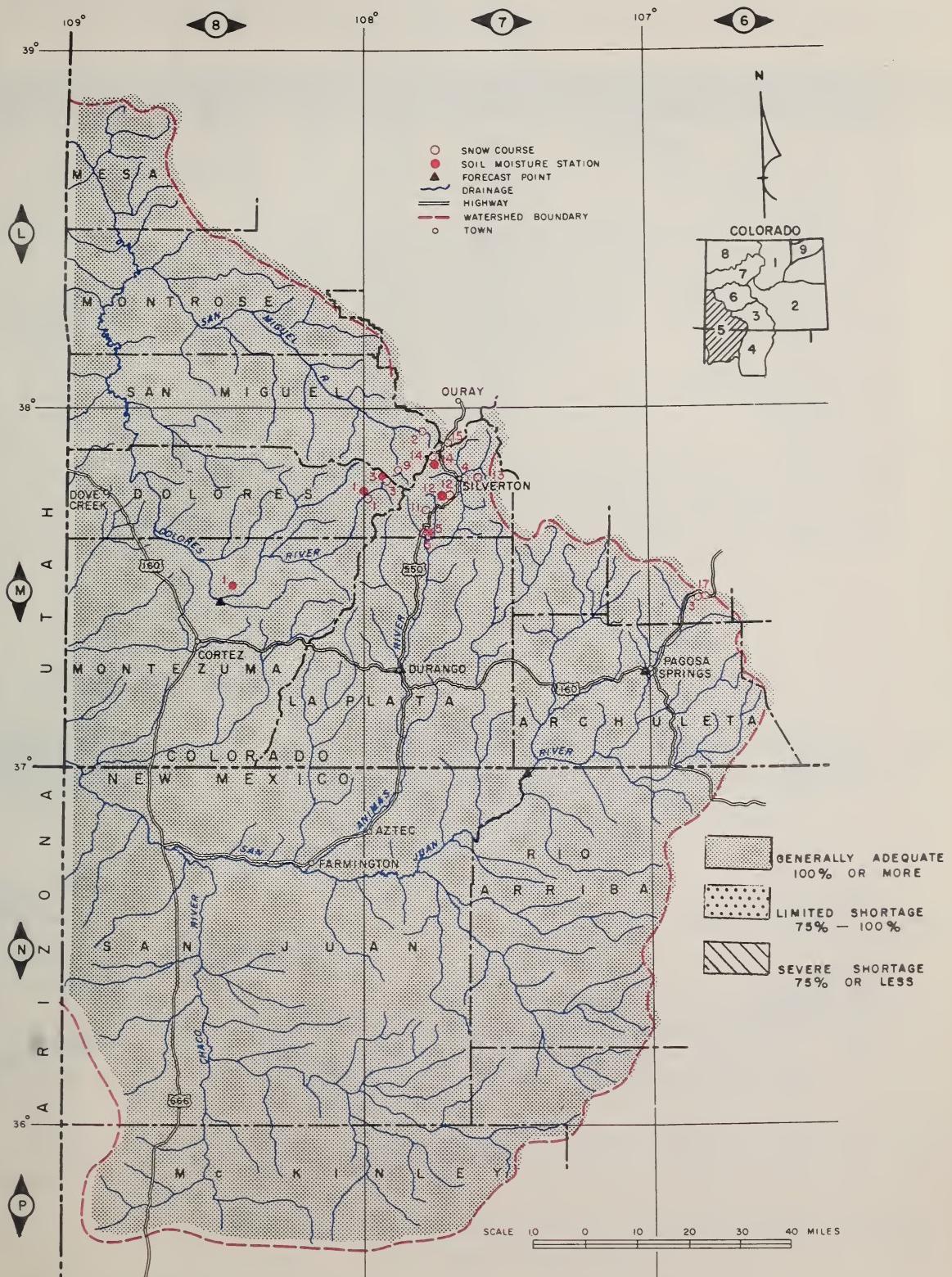
STREAMFLOW FORECAST (1,000 AC. FT.)

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Animas at Durango	640	135	475
Dolores at Dolores	350	125	279
Florida near Durango	75	121	62
LaPlata at Hesperus	40	143	28
Los Pinos near Bayfield*	325	148	220
Piedra Creek near Piedra	270	145	186
San Juan at Rosa, N. Mex.	825	141	587

ALL PROFILES 4 FEET DEEP

* OBSERVED FLOW PLUS CHANGES IN
STORAGE IN VALLECITO RESERVOIR

SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN RIVERS WATERSHEDS IN COLORADO & NEW MEXICO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES) LAST YEAR	AVERAGE 1943 - 57
SAN JUAN RIVER						
Chama Divide (B) (New Mexico)	6N2	3/30	10	3.5	1.5	1.7
Chamita (B) (New Mexico)	6N3	3/30	37	10.5	8.5	8.5
Upper San Juan (Colorado)	6M3	3/28	108	40.8	26.5	33.9
Wolf Creek Pass (B)	6M1	3/28	96	40.8	19.5	30.5
Wolf Creek Summit	6M17	3/28	111	38.1	24.7	29.5*
ANIMAS RIVER						
Cascade	7M5	3/30	47	15.8	11.4	12.1
Howardville	7M13	3/30	50	14.9	NS	11.4*
Ironton Park (B)	7M6	3/29	48	14.2	13.0	13.1
Mineral Creek	7M14	3/30	58	17.7	13.4	14.1*
Molas Lake	7M12	3/30	55	18.8	10.4	13.7*
Red Mountain Pass	6M19	3/30	104	39.0	29.6	30.3*
Silverton Sub-Station	7M4	3/30	33	8.9	5.9	5.1
Spud Mountain	7M11	3/30	87	30.7	21.8	24.3*
DOLORES RIVER						
Lizard Head	7M3	3/28	66	21.9	14.9	17.6
Rico	7M1	3/28	31	10.2	6.0	7.7
Telluride	7M2	3/28	26	7.3	7.2	6.8
Trout Lake	7M9	3/28	55	15.5	11.0	13.2*

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

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Colorado State University
Ft. Collins, Colorado

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

GUNNISON RIVER WATERSHED IN COLORADO

as of

April 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER



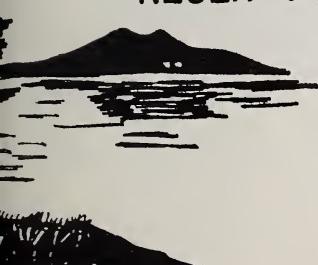
Snow increase over the Gunnison basin was just about normal and remains about 133% of average. Snowfall was slightly below normal on the Uncompahgre. Last month snow was 136% of average compared to 121% this month on the Uncompahgre. Both drainages still have excellent snow packs.

SOIL MOISTURE



Soil moisture as measured April 1 is still excellent. As a whole, the four soil moisture stations on this drainage are 165% of normal and all are much better than last year at this time.

RESERVOIR STORAGE



Taylor Park Reservoir contains more water on this date than any time since 1958. Storage then was high due to the good water year of 1957. The reservoir will easily fill this year. Taylor Reservoir contains 82,000 acre feet compared to a normal of 62,200 acre feet.

EXPECTED STREAMFLOW



Forecasts on Gunnison, Surface and Uncompahgre Rivers are all about 140% of normal. Uncompahgre is the only one being forecast less than last month. This is primarily due to the less than normal snow increase.

Water users will have an adequate water supply for their summer use.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

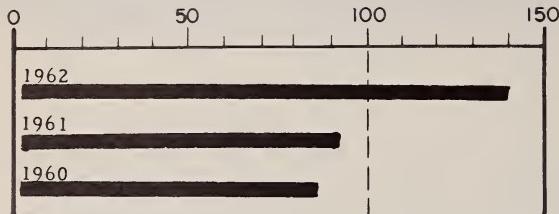
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

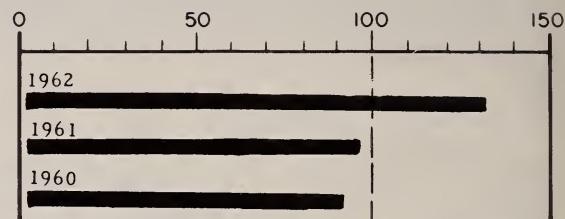
E. A. Nicholson, Area Conservationist,
Grand Junction, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

GUNNISON



UNCOMPAHGRE



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Taylor	106.2	82.0	34.0	62.2

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE.	DEP.	WINTER AVE. DEP.
	Dec-Feb		
Gunnison	8.28	+3.83	5.22 +1.69

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

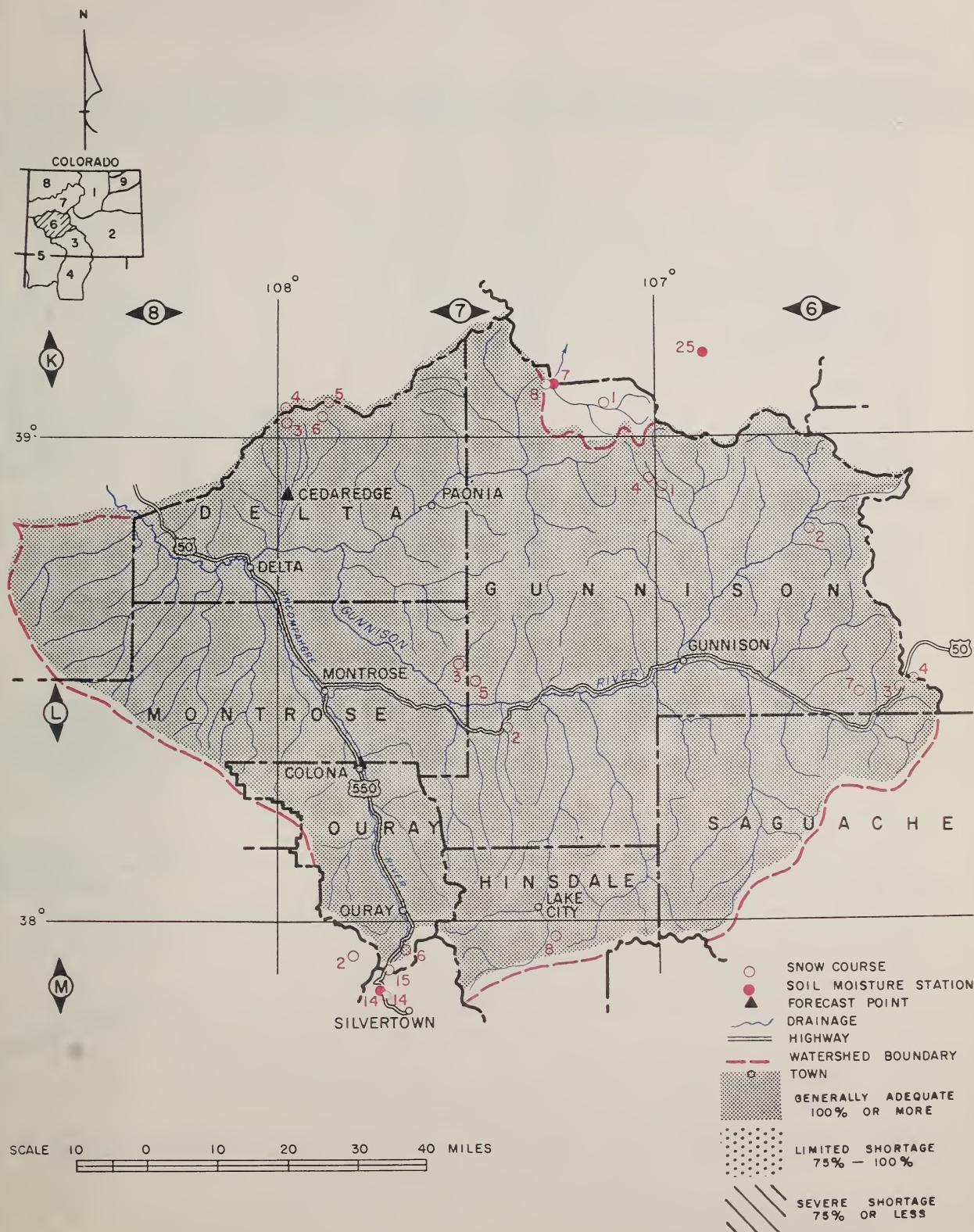
STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
King	8.0	5.1	2.7	3.9
Maroon	8.0	7.2	0.1	1.6
Mineral Creek	7.0	4.8	NS	4.2
Placita	8.0	5.8	0.1	4.2

STREAMFLOW FORECAST (1,000 AC. FT.)

APRIL THROUGH SEPTEMBER

STREAM AND STATION	FORECAST APRIL SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Gunnison nr. Grand Jct.	1950	141	1386
Surface Cr. at Cedaredge	26	144	18
Uncompahgre at Colona	188	130	145

GUNNISON RIVER WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	AVERAGE 1943 - 57
GUNNISON RIVER						
Alexander Lake	7K3	3/28	89	31.0	18.7	22.8
Black Mesa	7L5	Delayed	--	--	13.1	--
Blue Mesa	7L2	3/29	38	10.2	7.2	--
Cochetopa Pass (B)	6L6	3/26	28	5.7	6.2	5.4*
Crested Butte	6L1	3/27	55	19.8	11.1	15.3
Keystone	7L3	3/27	79	31.0	12.0	--
Lake City	7M8	3/28	40	9.4	6.9	8.6*
Long Draw	7L4	Delayed	--	--	7.4	--
Mesa Lakes (B)	7K4	3/28	59	20.4	13.6	17.4
Monarch Pass (B)	6L4	3/28	65	22.7	18.4	18.6
McClure Pass	7K8	3/28	60	26.9	9.6	15.8*
Mineral Creek (B)	7M14	3/30	58	17.7	13.4	14.1*
North Lost Trail (B)	7K1	3/28	56	26.2	10.3	15.7
Park Cone	6L2	3/23	56	16.3	8.1	12.3
Park Reservoir	7K6	3/28	94	34.8	20.3	26.8
Porphyry Creek	6L3	3/28	64	22.1	15.8	17.1
Trickle Divide (B)	7K5	3/28	99	37.4	22.6	28.9
Tomichi	6L7	3/28	46	14.4	10.4	--
UNCOMPAGRE RIVER						
Ironton Park	7M6	3/29	48	14.2	13.0	13.1
Lizard Head	7M3	3/28	66	21.9	14.9	17.6
Red Mountain Pass (B)	7M15	3/30	104	39.0	29.6	30.3*
Telluride	7M2	3/28	26	7.3	7.2	6.8
Trout Lake	7M9	3/28	55	15.5	11.0	13.2*

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

(NS) - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

Jack N. Washichek and Don W. McAndrew

Soil Conservation Service

Colorado State University

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
COLORADO RIVER WATERSHED IN COLORADO
as of
April 1, 1962**

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO

SNOW COVER



Mountainous areas did not receive their normal amount of snow during March. Forecasts still remain high, because of the much above average snow pack layed down in the previous months. Currently some of the low elevation snow courses are below normal. The snow pack as a whole is about 125% of normal.

SOIL MOISTURE



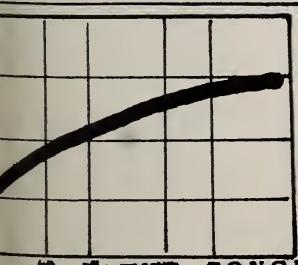
Soil moisture remains excellent. All stations are above average and some areas have more moisture stored in the soil than ever recorded before. This will increase the runoff and is one reason some of the forecasts may seem high.

RESERVOIR STORAGE



Carry-over storage is excellent. Both Granby and Green Mountain Reservoirs indicate less than a month ago. Spring runoff should easily fill both reservoirs.

EXPECTED STREAMFLOW



Runoff on the Colorado River main stem and tributaries is being estimated at a low of 114% of normal on the Blue River to 152 % on the Roaring Fork.

Forecasts in some cases are higher than snow pack would indicate. This is primarily due to the excellent soil moisture.

THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

E. A. Nicholson, Area Conservationist
Grand Junction, Colorado
M. H. Weaver, Area Conservationist,
Glenwood Springs, Colorado

SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES) LAST YEAR	AVERAGE 1943 - 57
COLORADO RIVER (UPPER)						
Arrow	5K6	3/29	49	14.2	9.7	11.6
Berthoud Pass	5K3	3/30	56	18.7	11.9	15.0
Berthoud Summit	5K14	3/30	66	22.1	18.2	18.8*
Blue River	6K21	3/30	36	9.9	5.4	--
Cooper Hill	6K23	3/24	58	14.1	8.6	--
Fiddlers Gulch	6K5	3/30	59	18.8	11.3	17.2
Fremont Pass	6K8	3/28	66	21.1	14.3	16.9
Frisco	6K13	3/29	33	8.2	5.7	8.7*
Glen Mar Ranch	6K20	3/28	38	11.1	7.3	8.6*
Gore Pass	6J11	3/28	43	14.7	6.6	10.9*
Granby	5J16	3/28	32	9.5	4.4	7.6*
Grand Lake	5J19	3/26	41	10.8	4.6	8.9*
Grizzly Peak	5K9	3/27	64	21.3	16.3	18.9
Hoosier Pass (B)	6K1	3/30	49	15.3	10.4	13.1
Jones Pass	5K21	3/28	52	17.3	12.6	--
Lake Irene	5J10	3/27	74	31.6	14.1	22.9
Lapland	5K7	3/29	42	12.4	5.5	12.1
Lulu	5J7	3/30	69	25.3	10.5	17.6
Lynx Pass	6K6	3/28	54	19.2	8.9	12.7
McKenzie Gulch	6K28	--	--	--	--	--
Middle Fork Camp Ground	5K4	3/28	36	11.0	8.2	9.7
Milner Pass	5J24	3/27	51	17.2	8.4	12.9*
Monarch Lake	5J14	3/29	43	10.7	6.8	10.8*
North Inlet Grand Lake	5J9	3/29	36	9.5	5.3	10.3
Pando	6K19	3/28	36	11.0	8.7	11.3*
Phantom Valley	5J4	3/27	40	13.2	6.8	10.8
Ranch Creek	5K18	3/29	42	10.9	6.9	--
Shrine Pass	6K9	3/28	66	19.8	13.3	18.3
Snake River	5K16	3/29	35	8.6	4.6	9.2*
Summit Ranch	6K14	3/29	30	8.0	5.7	9.3*
Tennessee Pass	6K2	3/28	45	12.8	8.6	10.0
Vail Pass	6K15	3/28	64	23.5	10.8	18.5*
Vasquez Creek	5K19	3/29	50	15.2	9.2	--
Willow Creek Pass	6J5	3/28	54	18.0	9.8	13.6
ROARING FORK RIVER						
Aspen	7J22	3/26	28	22.4	10.1	--
Independence Pass Tunnel	6K4	3/30	69	26.5	10.9	18.7
Ivanhoe	6K10	3/26	69	23.1	10.9	18.3*
Lift	7K27	3/26	81	30.3	16.6	--
McClure Pass	7K8	3/28	60	26.9	9.6	15.8*
Nast	6K6	3/28	30	6.1	2.8	6.1
North Lost Trail	7K1	3/28	56	26.2	10.3	15.7
PLATEAU CREEK						
Alexander (B)	7K3	3/28	89	31.0	18.7	22.8
Mesa Lakes	7K4	3/28	59	20.4	13.6	17.4
Park Reservoir (B)	7K6	3/28	94	34.8	20.3	26.8
Trickle Divide	7K5	3/28	99	37.4	22.6	28.9

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

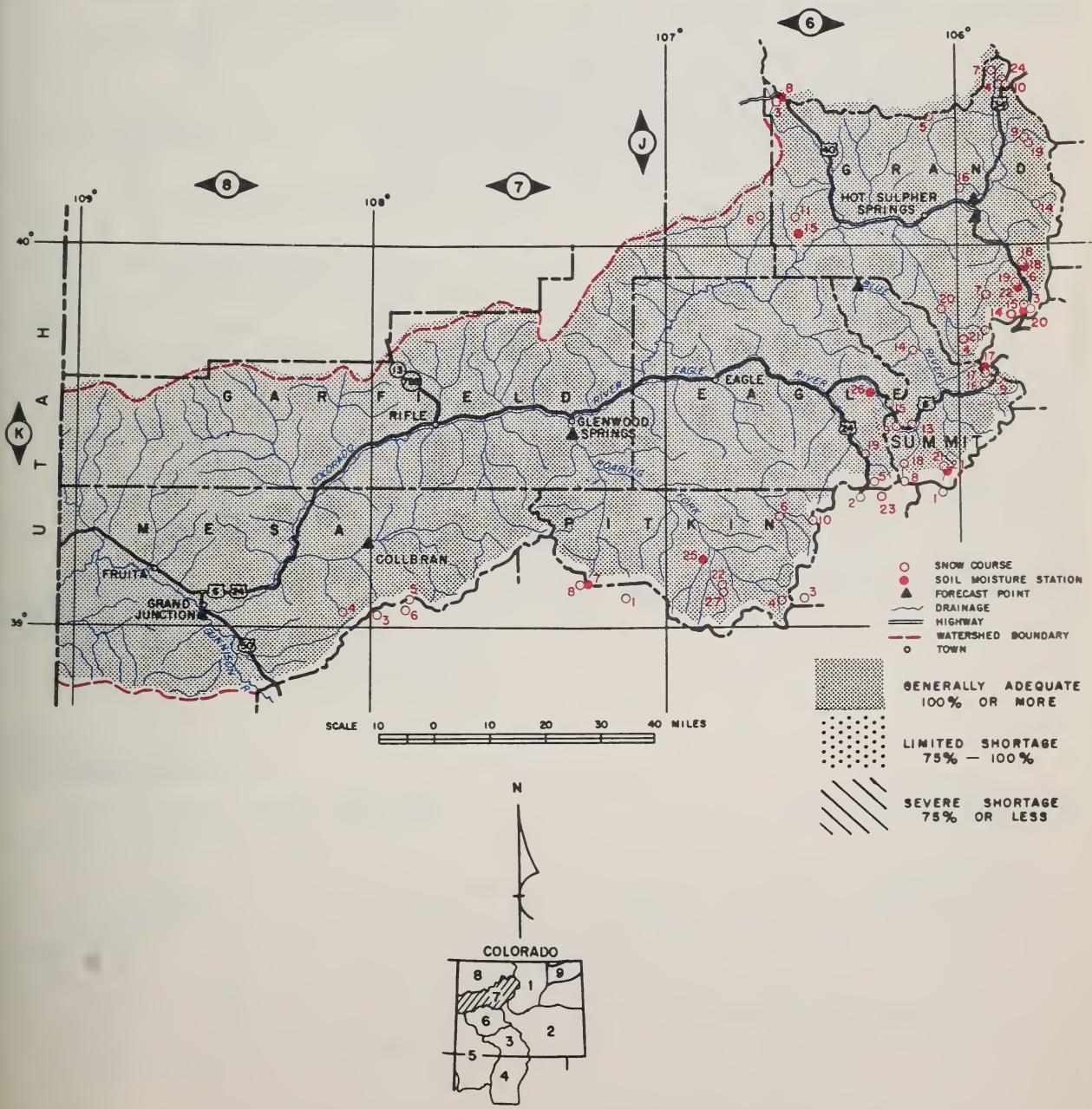
Jack N. Washichek and Don W. McAndrew

Soil Conservation Service

Colorado State University

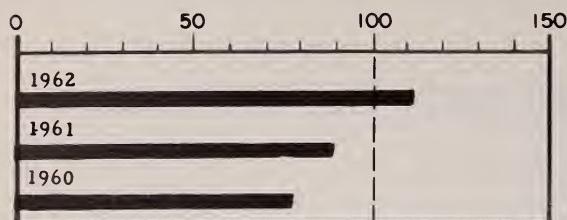
Ft. Collins, Colorado

COLORADO RIVER WATERSHED IN COLORADO

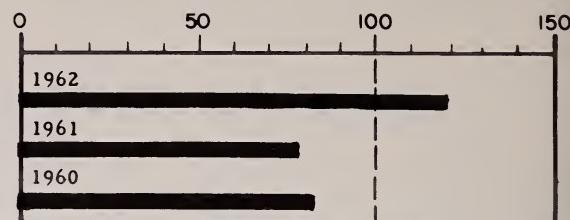


WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

UPPER COLORADO ABOVE GLENWOOD SPRINGS



LOWER COLORADO BELOW GLENWOOD SPRINGS



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Granby *	465.5	334.4	224.2	197.5
Green Mt.	146.9	38.9	60.2	57.7

* Shorter Period

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE. DEP.	WINTER AVE. DEP.
Upper Colorado	9.86 +4.59	5.10 +.72
Lower Colorado	8.26 +3.61	3.81 +.82

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Berthoud Pass	8.0	6.8	4.0	2.9
Blue River	7.0	5.7	0.1	1.5
Gore	7.0	6.3	0.5	3.9
Maroon	8.0	7.2	0.1	1.6
Muddy Pass	8.0	5.2	0.7	2.2
Placita	8.0	5.8	0.1	4.2
Ranch Creek	7.0	5.5	1.8	3.0
Vail Pass	8.0	6.0	0.8	3.7
Vasquez	7.0	--	4.2	4.3

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. F.

APRIL THROUGH SEPTEMBER.

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Blue River abv. Green Mt. Dam	330	114	290
Colo. R. nr. Granby (4)	340	145	235
Colo. R. at Glenwood Sprg(5)	2100	136	1546
Plateau Cr. near Collbran	66	116	57
Roaring Fork at Gl. Spgs.(6)	1225	152	803
Williams Fork nr. Parshall	107	137	78
Willow near Granby	65	148	44

(4) Observed flow plus diversions by Adams tunnel and Grand River ditch plus change in storage in Granby Reservoir.

(5) Observed flow plus the changes as indicated in (4) plus Moffat Ditch.

(6) Observed flow plus diversion through Twin Lakes tunnel.

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Snow Survey
Colorado State University
Ft. Collins, Colorado

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
YAMPA, WHITE, & NORTH PLATTE
RIVERS WATERSHEDS IN COLORADO**

as of
April 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER



Snow pack increased just about normally over this entire basin. Only two areas show much change over last month. The Little Snake basin got a little additional snow while the Elk received slightly less than usual snow fall. Snow fall over the basin remains above normal.

SOIL MOISTURE



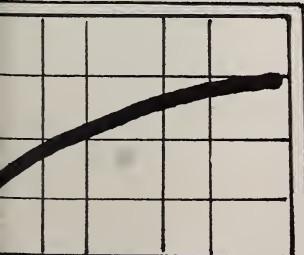
Moisture stored in the high mountain soil is better than any time on record. There was some snow melt at low elevations. This contributed to the soil moisture and is probably the reason some stations are near saturation.

RESERVOIR STORAGE



There are no major reservoirs on these drainages in Colorado

EXPECTED STREAMFLOW



All streams in these basins should flow better than normally. The lowest flow expected will be over the Elk which is being forecast at only 111% of the 15-year normal.

Water supplies will be adequate in all areas this summer.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

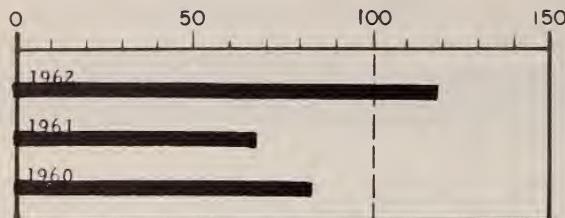
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

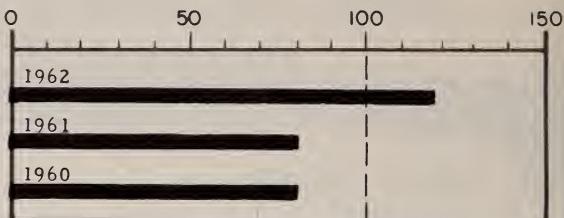
M. H. Weaver, Area Conservationist,
Glenwood Springs, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

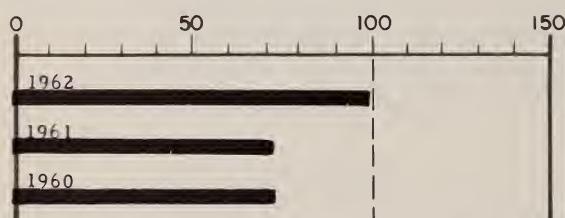
YAMPA



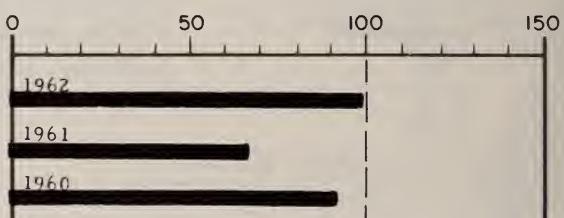
WHITE



LARAMIE



NORTH PLATTE



SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Hahn's Peak	8.0	8.0	6.0	—
Laramie Road	7.0		NS	1.7
Muddy Pass	8.0	5.2	0.7	2.2
Two Mile	8.0	5.4	0.7	2.6
Willow Pass	7.0	6.0	0.6	2.7

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT. APRIL THROUGH SEPTEMBER)

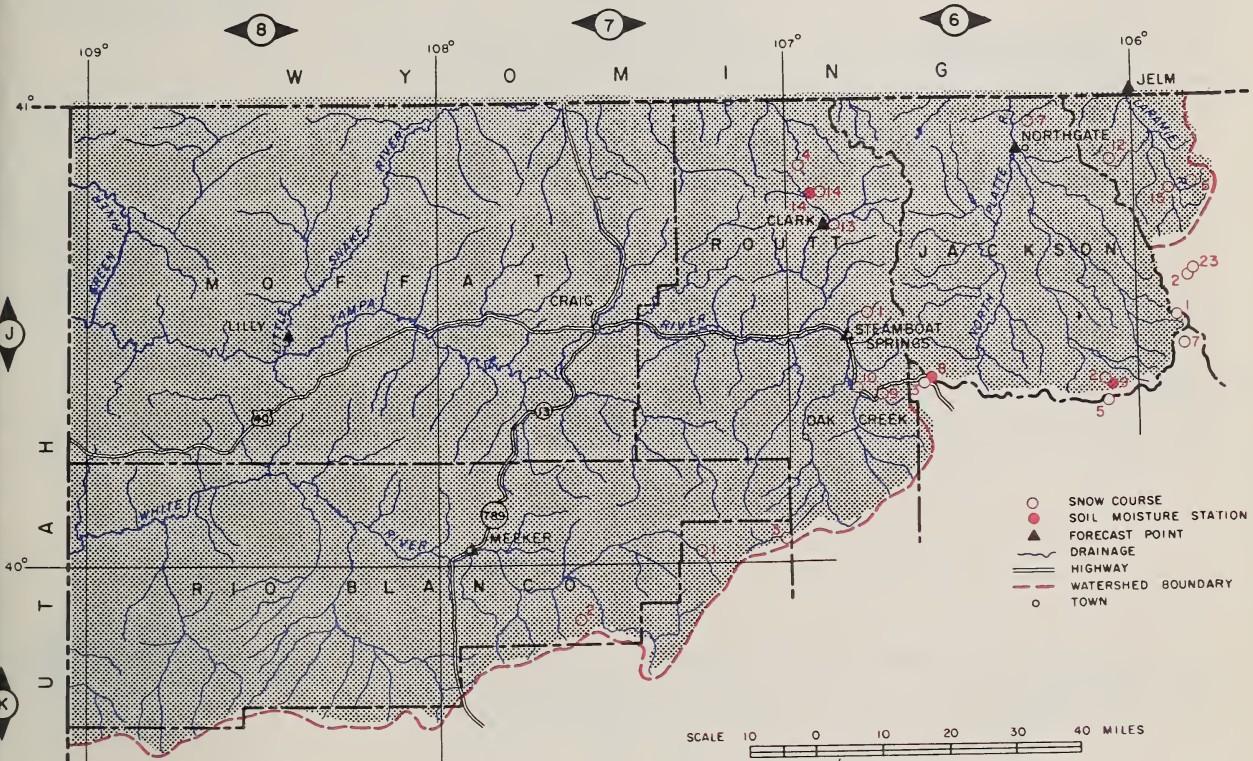
STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Elm at Clark	240	111	215
Laramie at Jelm	147	130	113
Little Snake at Lilly	520	149	350
North Platte at Northgate			255
White at Meeker	420	125	335
Yampa at Steamboat Sprgs.	350	124	283

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER		WINTER	
	AVE.	DEP.	AVE.	DEP.
North Platte	6.08	+3.07	2.04	+.69
White	8.33	+3.81	4.59	+1.70
Yampa	9.93	+4.14	7.27	+1.87

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

YAMPA, WHITE, & NORTH PLATTE RIVERS WATERSHEDS IN COLORADO



N
COLORADO

GENERALLY ADEQUATE
100% OR MORE

LIMITED SHORTAGE
75% - 100%

SEVERE SHORTAGE
75% OR LESS

SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
NORTH PLATTE RIVER						
Cameron Pass	5J1	3/29	99	38.9	22.3	24.9
Columbine Lodge	6J3	3/26	78	30.0	17.2	24.7
Deadman Hill (B)	5J6	3/28	56	17.2	15.4	16.8
McIntyre (B)	5J15	3/13	50	15.8	8.8	11.4*
Northgate	6J7	3/28	34	8.9	4.4	6.2*
Park View	6J2	3/28	42	13.4	7.8	9.7
Roach (B)	6J12	3/9	84	26.0	NS	20.0
Willow Creek Pass (B)	6J5	3/28	54	18.0	9.8	13.6
YAMPA RIVER						
Bear River	7J3	3/27	49	14.7	7.1	—
Clark	6J13	3/29	45	14.9	7.0	—
Columbine Lodge (B)	6J3	3/26	78	30.0	17.2	24.7
Dry Lake	6J1	3/26	68	24.9	13.7	21.0
Elk River	6J4	3/28	59	21.3	12.8	18.2
Hahn's Peak	6J14	3/28	51	18.2	9.2	—
Lynx Pass (B)	6J6	3/28	54	19.2	8.9	12.7
Rabbit Ears	6J9	3/26	86	32.2	19.5	28.5*
Yampa View	6J10	3/26	52	18.2	9.9	15.5*
WHITE RIVER						
Burro Mountain	7K2	3/26	66	28.5	13.0	18.6
Rio Blanco	7J1	3/29	50	17.8	11.8	16.7

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

LOWER SOUTH PLATTE RIVER WATERSHED IN COLORADO
as of

April 1, 1962

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO

SNOW COVER



Snow cover over the entire South Platte watershed averages 115% of normal. Warm temperatures and below normal snow fall during the past month decreased the low elevation snow pack since March 1. Water content of the snow pack ranges from 75% of normal at low elevations to 160% at the higher levels.

SOIL MOISTURE



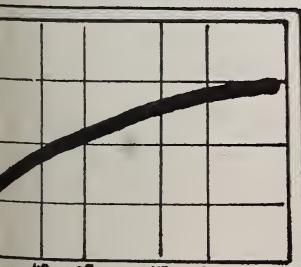
Mountain soil moisture in the South Platte watershed is near a record high. This condition will increase the flow expected from melting snows. The lower valleys are all reporting excellent soil moisture.

RESERVOIR STORAGE



Water held in storage on the lower South Platte system is about 115% of average. Reservoirs on the Big Thompson project are filled to near capacity. This water will be an excellent supplement to irrigation needs this season.

EXPECTED STREAMFLOW



All tributaries to the South Platte River will flow better than average this season. Above average streamflow, excellent soil moisture, and above normal reservoir storage will assume good water supplies this irrigation season.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

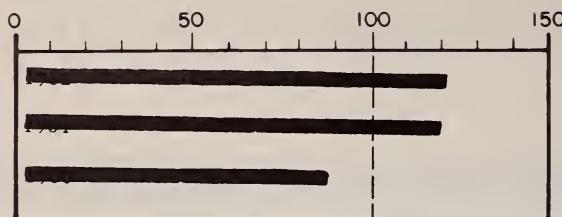
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K. W. Chalmers, State Conservationist
Colorado

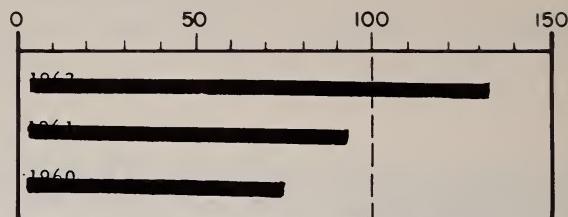
Wallace L. Bruce, Area Conservationist
Sterling, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

UPPER SOUTH PLATTE



LOWER SOUTH PLATTE



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Carter *	108.9	102.6	85.6	64.8
Cheeseman	79.0	77.9	70.0	49.2
Eleven Mile	81.9	97.8	97.8	69.2
Empire	37.7	33.6	30.9	29.1
Horsetooth *	143.5	135.1	112.2	99.4
Jackson Lake	35.4	32.2	33.7	33.6
Julesburg	28.2	19.1	22.2	21.4
Point of Rocks	70.0	68.9	70.0	58.2
Prewitt	32.8	27.7	21.4	19.8
Riverside	57.5	56.8	56.1	47.9

* Shorter Period

Carter and Horsetooth Reservoirs are part of the Big Thompson Project

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alpine Camp	7.0	3.3	1.3	1.2
Beaver Dam	6.0	4.6	0.4	1.0
Feather	6.0	0.6	0.1	0.7
Guard Station	7.0	2.7	0.4	1.0
Hoop Creek	6.0	5.1	0.5	1.4
Hoosier Pass	7.0	4.6	0.1	1.7
Kenosha Pass	7.0	1.6	0.1	1.7
Laramie Road	7.0	—	—	1.7
Two Mile	8.0	5.4	0.7	2.6
Clear Creek	8.0	4.2	0.5	1.3

ALL PROFILES 4 FEET DEEP

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER		WINTER	
	AVE.	DEP.	AVE.	DEP.
Upper So. Pl.	8.07	+3.71	2.06	+.47
Lower So. Pl.	7.15	+2.52	.92	-.18

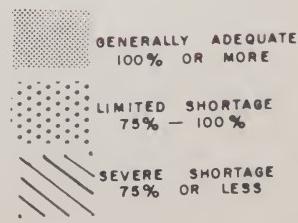
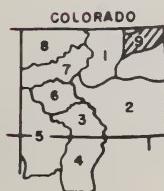
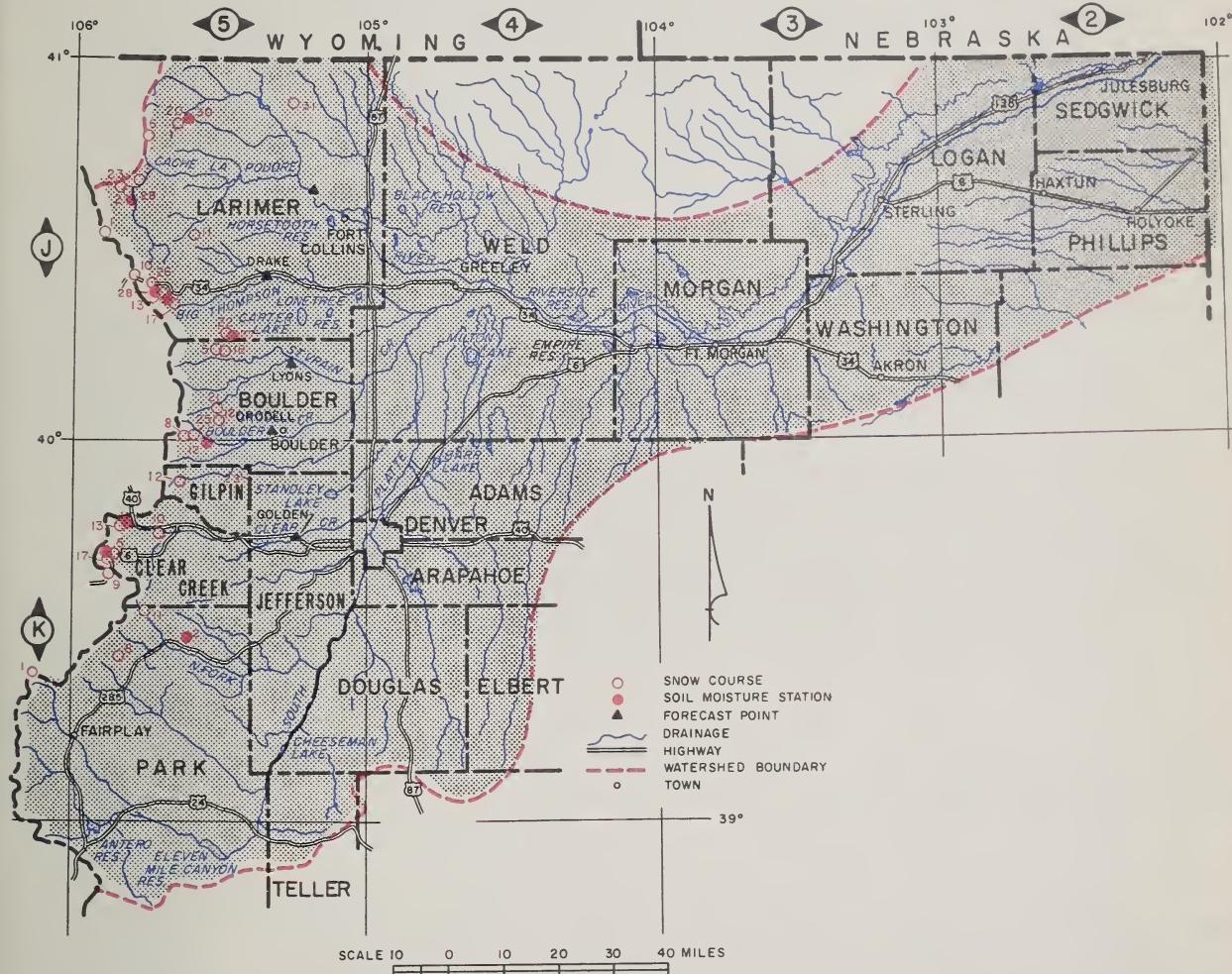
PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

STREAMFLOW FORECAST

APRIL THROUGH SEPTEMBER

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Big Thompson at Drake (2)	142	134	106
Boulder at Orodell	64	116	55
Cache La Poudre at Canon(1)	210	111	189
Clear Creek at Golden (3)	180	130	137
Saint Vrain at Lyons	93	111	84

LOWER SOUTH PLATTE RIVER WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
SOUTH PLATTE RIVER AND TRIBUTARIES						AVERAGE 1943 - 57
Baltimore	5K23	3/30	31	9.1	7.8	-
Berthoud Falls	5K13	3/30	48	13.2	10.7	14.6*
Big South	5J3	4/1	9	2.1	2.6	2.7
Boulder Falls	5J25	3/30	47	12.5	11.6	15.4*
Cameron Pass	5J1	3/29	99	38.9	22.3	24.9
Chambers Lake	5J2	4/1	37	10.1	6.7	8.8
Copeland Lake	5J18	3/29	13	4.0	4.3	5.3*
Deadman Hill	5J6	3/28	56	17.2	15.4	16.8
Deer Ridge	5J17	3/31	29	9.4	4.3	5.9*
Empire	5K10	3/30	36	9.7	8.0	7.8*
Geneva Park	5K11	NS	--	--	2.6	4.2*
Grizzly Peak (B)	5K9	3/27	64	21.3	16.3	18.9
Hidden Valley	5J13	3/30	53	16.1	10.3	12.4
Hoosier Pass	6K1	3/30	49	15.3	10.4	13.1
Hour Glass Lake	5J11	3/28	26	6.9	6.2	9.2
Jefferson Creek	5K8	3/28	37	11.7	8.4	9.8
Lake Irene (B)	5J10	3/27	74	31.7	14.1	22.9
Long's Peak	5J22	3/31	43	11.8	7.3	11.7*
Lost Lake	5J23	4/1	47	13.1	8.5	11.8*
Loveland Pass	5K5	3/29	55	19.2	15.3	15.8
Loveland Lift No. 1	5K24	3/27	88	30.7	21.5	--
Pine Creek	5J31	3/29	6	2.3	5.2	--
Red Feather	5J20	3/29	29	7.6	8.9	8.8
Two Mile	5J26	3/30	70	23.3	11.9	15.3*
University Camp	5J8	3/30	65	21.5	16.5	24.5
Ward	5J21	3/29	25	6.8	7.5	7.1*
Wild Basin	5J5	3/30	41	10.1	11.1	15.0

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by
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 Colorado State University
 Ft. Collins, Colorado

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LIST OF COOPERATORS

The following organizations cooperate in snow surveys for the Colorado, Platte, Arkansas and Rio Grande watersheds. Many other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

STATE

Colorado State Engineer
New Mexico State Engineer
Nebraska State Engineer
Colorado Experiment Station
Rocky Mountain Forest and Range Experiment Station

FEDERAL

Department of Agriculture

Forest Service
Soil Conservation Service

Department of Interior

Bureau of Reclamation
Geological Survey
National Park Service
Indian Service

Department of Commerce

Weather Bureau

War Department

Army Engineer Corps

Atomic Energy Commission

PUBLIC UTILITIES

Colorado Public Service Company
Western Colorado Power Company
Public Service Company of New Mexico

MUNICIPALITIES

City of Denver
City of Boulder

WATER USERS ORGANIZATIONS

Arkansas Valley Ditch Association
Colorado River Water Conservation District

IRRIGATION PROJECTS

Farmers Reservoir and Irrigation Company
San Luis Valley Irrigation District
Santa Maria Reservoir Company
Costilla Land Company
Uncompahgre Valley Water Users' Association
Twin Lakes Reservoir and Canal Company

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SOIL CONSERVATION SERVICE
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FEDERAL - STATE - PRIVATE
COOPERATIVE SNOW SURVEYS

Furnishes the basic data
necessary for forecasting
water supply for irrigation,
domestic and municipal water
supply, hydro-electric power
generation, navigation,
mining and industry

*"The Conservation of Water begins
with the Snow Survey"*

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WATER SUPPLY OUTLOOK CURRENT SERIAL RECORDS
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
COLORADO and NEW MEXICO

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE
and
COLORADO AGRICULTURAL EXPERIMENT STATION,
STATE ENGINEER of COLORADO
and STATE ENGINEER of NEW MEXICO

Data included in this report were obtained by the agencies
named above in cooperation with the Bureau of Reclamation,
U.S. Forest Service, National Park Service and other Federal,
State, and private organizations.

|||||| AS OF |||||
MAY 1, 1962

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Cooperative Snow Survey and Water Supply Forecast Reports:

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Fortunately, most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from fore-knowledge of the runoff.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, about 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1400 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

By relating snow survey measurements taken over a period of years to spring-summer runoff during the same period, relationships have been developed which make it possible to forecast seasonal runoff several months in advance of occurrence. In order to make a forecast, once a forecast relationship has been developed, the maximum snow water content at previously selected key snow courses is usually entered in the forecast relationship. More accurate forecasts are often obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast relationships.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, streamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions.

PUBLISHED BY SOIL CONSERVATION SERVICE

<u>REPORTS</u>	<u>ISSUED</u>	<u>LOCATION</u>	<u>COOPERATING WITH</u>
RIVER BASINS			
COLORADO AND STATE OF UTAH	MONTHLY (JAN.-JUNE)	SALT LAKE CITY, UTAH	UTAH STATE ENGINEER AND OTHER AGENCIES
COLUMBIA	MONTHLY (JAN.-MAY)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
UPPER MISSOURI AND STATE OF MONTANA	MONTHLY (FEB.-JUNE)	BOZEMAN, MONTANA	MONT. AGR. EXP. STATION
WEST-WIDE	OCT. 1, APR. 1, MAY 1	PORTLAND, OREGON	ALL COOPERATORS
STATES			
ALASKA	MONTHLY (MAR.-MAY)	PALMER, ALASKA	ALASKA S.C.D.
ARIZONA	SEMI-MONTHLY (JAN. 15 - APR. 1)	PHOENIX, ARIZONA	SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION
COLORADO AND NEW MEXICO	MONTHLY (FEB.-MAY)	FORT COLLINS, COLORADO	COLO. AGR. EXP. STATION COLO. STATE ENGINEER N. MEX. STATE ENGINEER
IDAHO	MONTHLY (FEB.-MAY)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
NEVADA	MONTHLY (JAN.-MAY)	RENO, NEVADA	NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES - DIVISION OF WATER RESOURCES
OREGON	MONTHLY (JAN.-JUNE)	PORTLAND, OREGON	ORE. AGR. EXP. STATION OREGON STATE ENGINEER
WASHINGTON	MONTHLY (FEB.-JUNE)	SPOKANE, WASHINGTON	WN. STATE DEPT. OF CONSERVATION
WYOMING	MONTHLY (FEB.-JUNE)	CASPER, WYOMING	WYOMING STATE ENGINEER

Copies of these various reports may be secured from:

Head, Water Supply Forecasting Section
Soil Conservation Service
P.O. Box 4170, Portland 8, Oregon

PUBLISHED BY OTHER AGENCIES

<u>REPORTS</u>	<u>ISSUED</u>	<u>AGENCY</u>
BRITISH COLUMBIA	MONTHLY (FEB.-JUNE)	COMPTROLLER, WATER RIGHTS BR., DEPT. OF LANDS AND FORESTS, PARLIAMENT BLDG., VICTORIA, B.C., CANADA
CALIFORNIA	MONTHLY (FEB.-MAY)	CALIF. DEPT. OF WATER RESOURCES, SACRAMENTO, CALIF.

FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND WATER SUPPLY FORECASTS

for

COLORADO RIVER, PLATTE RIVER
ARKANSAS RIVER AND RIO GRANDE
DRAINAGE BASINS

Issued

May 1, 1962

Report Prepared By
Jack N. Washichek, Snow Survey Supervisor
and
Don W. McAndrew, Assistant Snow Survey Supervisor
Fort Collins, Colorado

United States Department of Agriculture
Soil Conservation Service
and
Colorado Agricultural Experiment Station
Fort Collins, Colorado
and
State Engineer of Colorado
Denver, Colorado
and
State Engineer of New Mexico
Santa Fe, New Mexico

Issued By

Kenneth W. Chalmers
State Conservationist(Colo.)
Soil Conservation Service

Courtney A. Tidwell
State Conservationist (N. Mex.)
Soil Conservation Service

J. E. Whitten
State Engineer
State of Colorado

Sherman S. Wheeler, Director
Colorado Agricultural
Experiment Station

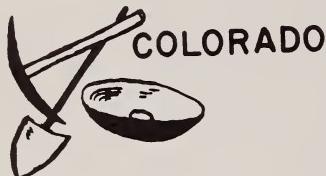
S. E. Reynolds
State Engineer
State of New Mexico

General Series Paper No. 768
Colorado Agricultural Experiment Station

WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO
as of
MAY 1, 1962



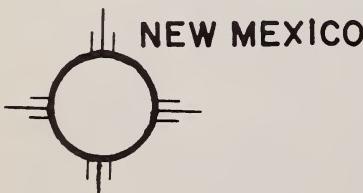
*
* FOR THE SECOND STRAIGHT MONTH SNOW FALL HAS BEEN *
* LESS THAN NORMAL. ABOVE SEASONAL TEMPERATURES *
* HAVE MELTED LOW ELEVATION SNOW AND RIVERS ARE *
* FLOWING AT A RECORD HIGH FOR THIS TIME OF THE *
* YEAR. MOST FORECASTS HAVE BEEN REDUCED, BUT *
* ALL STREAMS ARE STILL EXPECTED TO FLOW NORMAL *
* OR HIGHER.
* *



COLORADO

Forecasts have been reduced since April 1, but most of the State should still have adequate water supplies this summer. Mountain soils are saturated and valley soils are generally fair to good. Reservoirs throughout the State will furnish good supplemental supplies.

Current streamflow is much above normal.



NEW MEXICO

Most of the low elevation snow has been melted by high temperature and winds during April. All the high elevation snow courses are still above normal. Prospects for a much above normal summer streamflow have diminished. Flows still should be above normal and much will depend upon the spring and summer precipitation. If summer rainfall is normal or above, there should be adequate water for agricultural use.

WATER SUPPLY OUTLOOK

THE MAP ON THIS PAGE INDICATES THE MOST PROBABLE WATER SUPPLY AS OF THE DATE OF THIS REPORT. ESTIMATES ASSUME AVERAGE CONDITIONS OF SNOW FALL, PRECIPITATION AND OTHER FACTORS FROM THIS DATE TO THE END OF THE FORECAST PERIOD. AS THE SEASON PROGRESSES ACCURACY OF ESTIMATES IMPROVE. IN ADDITION TO EXPECTED STREAM-FLOW, RESERVOIR STORAGE, SOIL MOISTURE IN IRRIGATED AREAS, AND OTHER FACTORS ARE CONSIDERED IN ESTIMATING WATER SUPPLY. ESTIMATES APPLY TO IRRIGATED AREAS ALONG THE MAIN STREAMS AND MAY NOT INDICATE CONDITIONS ON SMALL TRIBUTARIES.

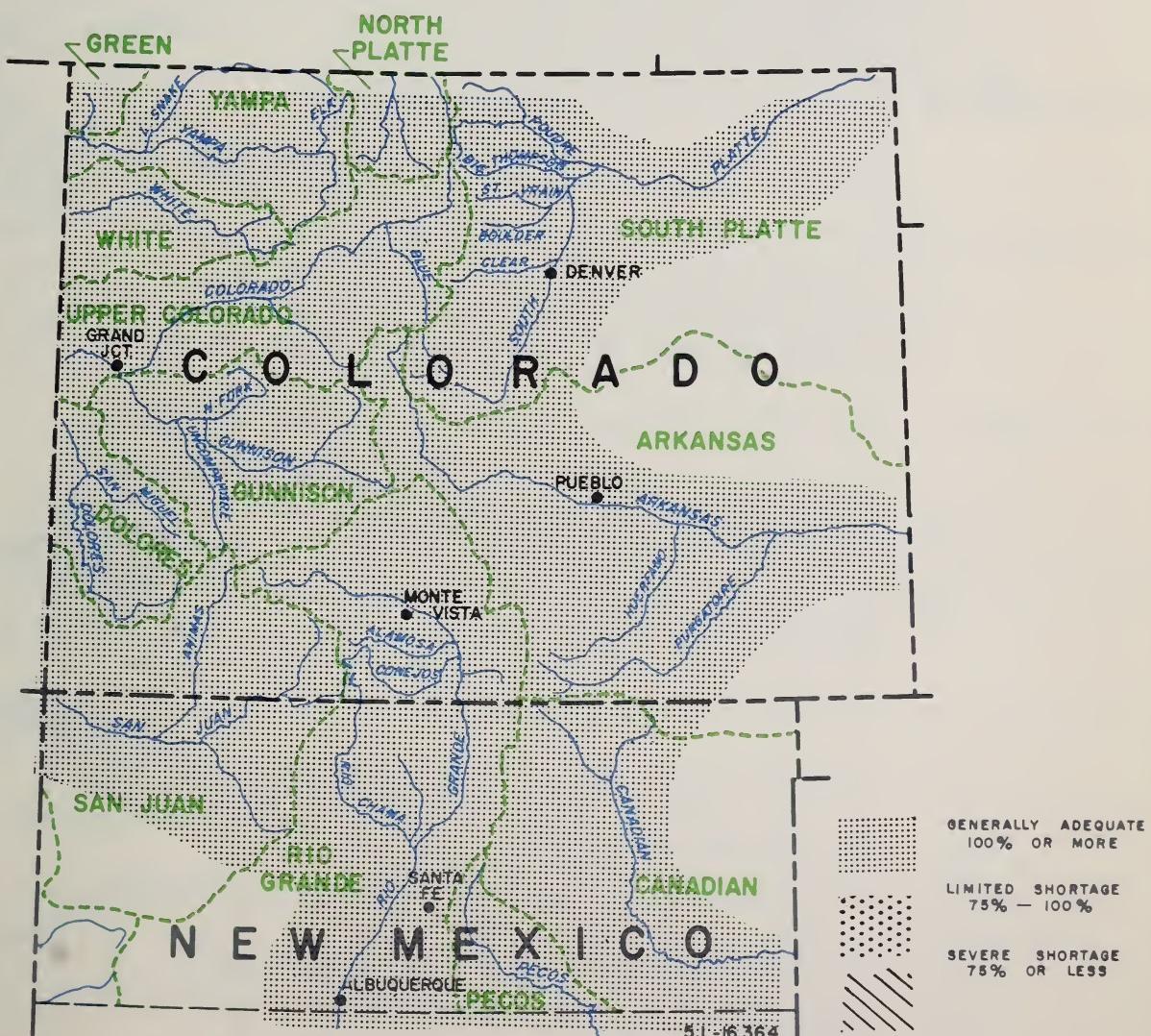


TABLE OF CONTENTS

WATER SUPPLY OUTLOOK BY MAJOR WATERSHED AREAS

WATERSHED I - SOUTH PLATTE RIVER WATERSHED

Describes water supply conditions in Fort Collins, Big Thompson, Longmont, Boulder Valley, Jefferson, Teller-Park, Douglas County, Morgan, Kiowa, West Arapahoe, West Adams, East Adams, Platte Valley, Southeast Weld, and West Greeley Soil Conservation Districts.

WATERSHED II - ARKANSAS RIVER WATERSHED

Describes water supply conditions in Lake County, Upper Arkansas, Fremont, Custer County Divide, Fountain Valley, Black Squirrel, Horse-Rush Creek, Central Colorado, Turkey Creek, Pueblo, Bessemer, Olney Boone, Cheyenne, Upper Huerfano, Stonewall, Spanish Peaks, Purgatoire, Branson Trinchera, Western Baca County, Southeastern Baca County, Two Buttes, Bent, Timpas, Northeast Prowers, Prowers, West Otero, East Otero, and Big Sandy Soil Conservation Districts.

WATERSHED III - RIO GRANDE WATERSHED (COLORADO)

Describes water supply conditions in Rio Grande, Center, Mosca, Hooper, Mt. Blanca, Sanches, and Culebra Soil Conservation Districts.

WATERSHED IV - RIO GRANDE WATERSHED (NEW MEXICO)

Describes water supply conditions in Lower Cebolla, Abiquiu-Vallecitos, Eastern Taos, Lindrith, Coyote-Canones, Espanola Valley, Pojoaque, Jemez, Santa Fe-Sandoval, Tijeras, Cuba, and Edgewood Soil Conservation Districts.

WATERSHED V - DOLORES, SAN JUAN, AND ANIMAS RIVERS WATERSHED

Describes water supply conditions in San Miguel Basin. Dove Creek, Dolores, Mancos, LaPlata, Pine River, San Juan, and Glade Park Soil Conservation Districts.

WATERSHED VI - GUNNISON RIVER WATERSHED

Describes water supply conditions in Delta, Gunnison, Cimarron, Shavano, and Uncompahgre Soil Conservation Districts.

WATERSHED VII - COLORADO RIVER WATERSHED

Describes water supply conditions in DeBeque, Lower Grand Valley, Bookcliff, Eagle County, Middle Park, Glade Park, Upper Grand Valley, Plateau Valley, South Side, and Mt. Sopris Soil Conservation Districts.

WATERSHED VIII - YAMPA, WHITE AND NORTH PLATTE RIVERS WATERSHED

Describes water supply conditions in Yampa, Moffat, West Routt, East Routt, North Park, Upper White River, Lower White River, and Douglas Creek Soil Conservation Districts.

WATERSHED IX - LOWER SOUTH PLATTE RIVER WATERSHED

Describes water supply conditions in Sedgwick, South Platte, Haxton, Peetz, Padroni, Morgan Rock Creek and Yuma Soil Conservation Districts.

**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

**SOUTH PLATTE RIVER WATERSHED IN COLORADO
as of**

May 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER



Snow cover at the low elevations has just about disappeared. We have had practically no snow during April and have had considerable melting. Warm weather the latter part of April ate up the snow. High elevation courses are still above normal. Cameron Pass has more snow than at any time since 1956.

SOIL MOISTURE



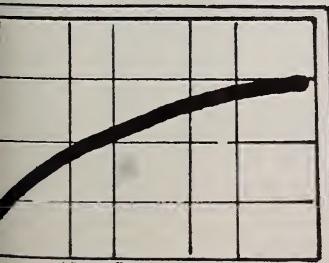
Soil moisture has been excellent all winter. Valley areas differ to some extent. Some areas are reporting good soil moisture while others are reporting only fair. High winds and warm temperatures have dried top soils.

RESERVOIR STORAGE



Reservoir storage is excellent. It is not only much better than last year, but considerably above the 1943-57 average. The Colorado - Big Thompson Project contains 575,000 acre feet compared to an average of only 348,000 acre feet.

EXPECTED STREAMFLOW



Forecasts are rapidly approaching normal. What looked like a big water season during February and March now looks just a little better than normal. With average precipitation, water supplies should still be adequate. Forecasts are based on average rainfall for the remainder of the year. All forecasts are still above normal. Current streamflow is much above average for this date.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

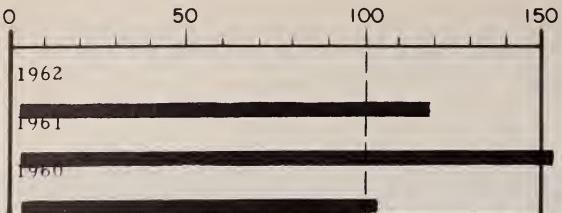
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

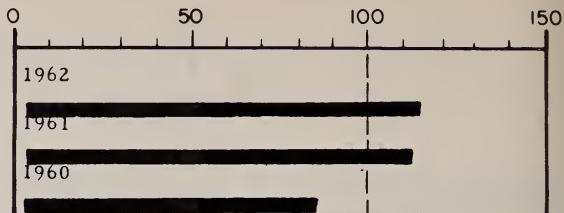
R. G. Wilson, Area Conservationist,
Littleton, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

CACHE LA POUDRE - BOULDER



CLEAR CREEK - UPPER SOUTH PLATTE



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Antero	33.0	15.7	15.7	14.9
Barr Lake	32.2	28.5	28.7	24.3
Black Hollow	8.0	5.1	2.2	3.4
Boyd Lake	44.0	43.0	33.5	18.5
Cache La Poudre	9.5	8.6	8.9	7.6
Carter Lake *	108.9	107.3	94.4	69.2
Chambers Lake	8.8	5.3	2.0	2.6
Cheeseman	79.0	79.1	63.9	52.7
Cobb Lake	34.3	20.4	13.0	5.5
Eleven Mile	81.9	98.0	98.0	69.4
Fossil Creek	11.6	9.6	10.6	7.9
Gross	43.1	33.1	12.3	--
Halligan	6.4	6.4	6.4	2.0
Horsetooth *	143.5	137.4	119.4	94.0
Lake Loveland	14.3	8.8	9.6	7.0
Lone Tree	9.2	9.1	7.8	8.4
Mariano	5.4	5.6	3.9	3.1
Marshall	10.3	7.0	4.6	3.5
Marston	18.9	16.3	17.0	15.1
Milton	24.4	15.4	16.0	12.8
Standley	18.5	16.1	12.9	12.4
Terry Lake	8.2	5.8	5.7	5.0
Union	12.7	12.0	9.1	7.2
Windsor	MEASURED FIRST OF MONTH	18.6	14.4	11.8

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alpine Camp	7.0	4.0	1.4	2.8
Beaver Dam	6.0	5.4	0.5	2.3
Feather	6.0	5.6	5.7	3.9
Guard Station	7.0	4.2	1.0	3.9
Hoop Creek	6.0	4.5	1.1	1.9
Hoosier Pass	7.0	7.0	1.2	2.5
Kenosha Pass	7.0	6.3	0.9	4.3
Laramie Road	7.0	6.4	0.8	4.0
Two Mile	8.0	6.0	1.2	3.2
Clear Creek	8.0	5.6	0.8	2.1

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT. APRIL THROUGH SEPTEMBER)

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Big Thompson at Drake (2)	130	123	106
Boulder at Orodell	63	115	55
Cache La Poudre at Canon(1)	190	101	139
Clear Creek at Golden (3)	172	125	137
Saint Vrain at Lyons	85	101	84

*Shorter Period.

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE.		WINTER AVE. DEP. Dec.-Mar.	
	AVE.	DEP.	AVE.	DEP.
Upper South Platte	8.07	+3.71	2.40	- .22

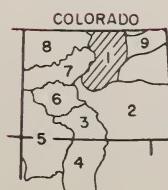
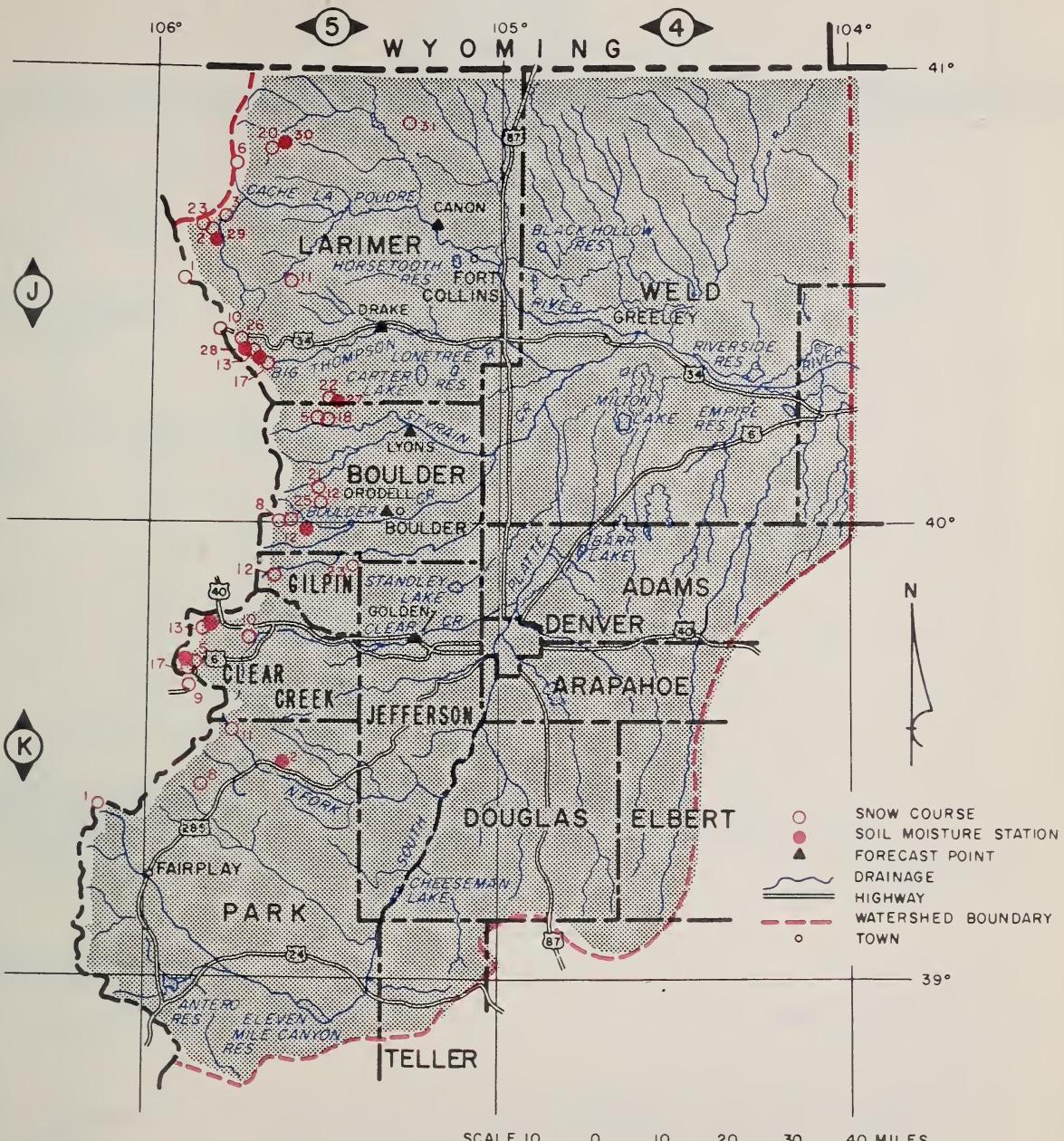
PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

(1) Observed flow minus diversions from Michigan, Colorado and Laramie rivers, plus diversions for irrigation and municipal use above station.

(2) Observed flow plus by-pass to power plants.

(3) Observed flow minus diversions through Jones Tunnel.

SOUTH PLATTE RIVER WATERSHED IN COLORADO



1

GENERALLY ADEQUATE
100% OR MORE

LIMITED SHORTAGE
75% - 100%

1

**SEVERE SHORTAGE
75% OR LESS**

SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	LAST YEAR	AVERAGE 1943 - 57
SOUTH PLATTE RIVER AND TRIBUTARIES						
Baltimore	5K23	4/30	9	2.4	5.2	--
Berthoud Falls	5K13	4/30	36	11.5	13.1	13.2*
Big South	5J3	4/29	0	0	1.2	0.9
Boulder Falls	5J25	4/27	32	11.6	14.5	12.5*
Cameron Pass	5J1	4/26	83	36.5	27.5	25.6
Chambers Lake	5J2	4/29	7	2.3	8.0	4.9
Copeland Lake	5J18	4/29	2	0.2	3.0	2.3*
Deadman Hill	5J6	4/30	52	17.5	17.0	17.7
Deer Ridge	5J17	4/29	11	2.5	4.2	3.6*
Empire	5K10	4/30	22	6.1	6.3	6.5*
Geneva Park	5K11	4/30	0	0	0.5	2.1*
Grizzly Peak (B)	5K9	4/25	56	21.3	19.2	20.1
Hidden Valley	5J13	4/29	45	14.6	11.9	13.4
Hoosier Pass	6K1	4/26	41	12.9	12.3	11.9
Hour Glass Lake	5J11	4/26	13	4.0	7.3	7.8
Jefferson Creek	5K8	4/26	28	8.2	7.7	8.0
Lake Irene(B)	5J10	4/30	66	25.6	18.1	24.3
Long's Peak	5J22	4/28	31	7.8	13.4	13.9*
Lost Lake	5J23	4/29	30	9.1	10.9	8.4*
Loveland Pass	5K5	4/25	38	15.5	18.3	14.7
Loveland Lift No. 1	5K24	4/25	78	28.2	27.1	--
Pine Creek	5J31	4/30	0	0	0	--
Red Feather	5J20	4/30	8	1.7	8.6	3.9
Two Mile	5J26	4/29	65	22.9	16.6	17.2*
University Camp	5J8	4/27	48	16.3	20.0	25.1
Ward	5J21	4/27	7	2.0	9.1	6.1*
Wild Basin	5J5	4/29	27	8.2	12.0	15.2

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

(NS) - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

Jack N. Washichek and Don W. McAndrew

Soil Conservation Service

Colorado State University

Ft. Collins, Colorado

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

ARKANSAS RIVER WATERSHED IN COLORADO

as of
May 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER



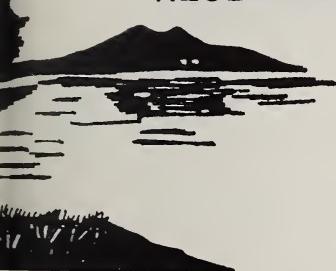
The high elevation snow pack remains above normal. Much of the lower elevation snows have melted due to the above seasonal temperatures and the below normal precipitation experienced last month.

SOIL MOISTURE



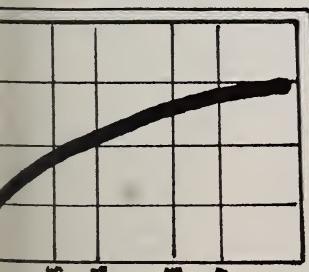
Mountain soil moisture over the entire basin remains good and is better than last year. This condition will add to the prospects of a good water year. Soil moisture in the valley is also reported as fair this month.

RESERVOIR STORAGE



Reservoirs in the Arkansas River system are releasing water for irrigation. Carry-over storage in these reservoirs is below normal.

EXPECTED STREAMFLOW



The main stem of the Arkansas is expected to flow much above normal this season. Tributaries to the main stem are not expected to produce above 90-100% of average.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

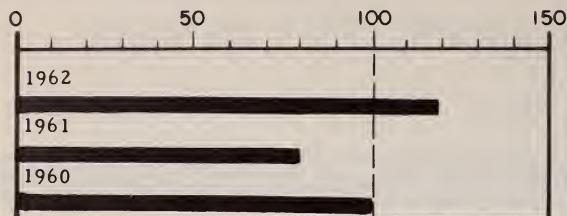
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

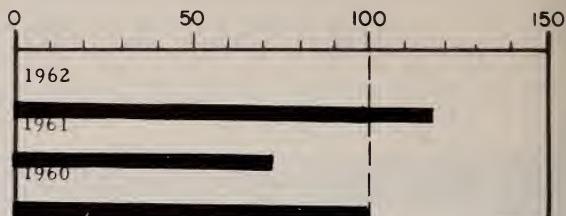
Dearl B. Beach, Area Conservationist,
Colorado Springs, Colorado
Will D. McCorkle, Area Conservationist,
Lamar, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

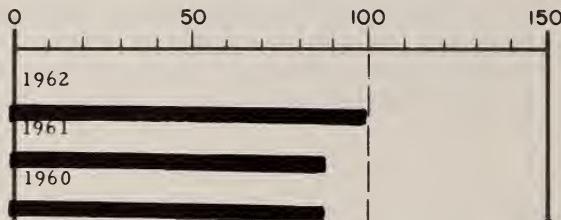
ARKANSAS ABOVE CADDOA DAM



ARKANSAS BELOW CADDOA DAM



PURGATOIRE - CUCHARAS - HUERFANO



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Adobe Creek	61.6	0	0	11.2
Clear Creek	11.4	10.4	5.5	4.3
Cucharas	40.0	8.0	2.1	4.4
Great Plains	150.0	39.4	22.7	51.1
Horse Creek	26.9	12.0	0	7.4
John Martin	366.6	0	11.6	44.8
Meredith	41.9	23.2	5.2	13.3
Model	15.0	5.1	6.5	2.3
Sugar Loaf	17.4	9.0	6.5	7.6
Twin Lakes	57.9	17.1	9.5	19.3

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Garfield	7.0	4.3	3.7	5.1
King	8.0	5.4	4.6	5.8
Lake Creek	6.0	4.1	2.5	4.6
LaVeta Pass	8.0	7.4	7.6	7.3
Leadville	7.0	4.6	0.5	2.8

ALL PROFILES 4 FEET DEEP

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER		WINTER	
	AVE.	DEP.	AVE.	DEP.
Arkansas	8.36	+3.49	3.22	-0.03

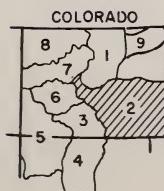
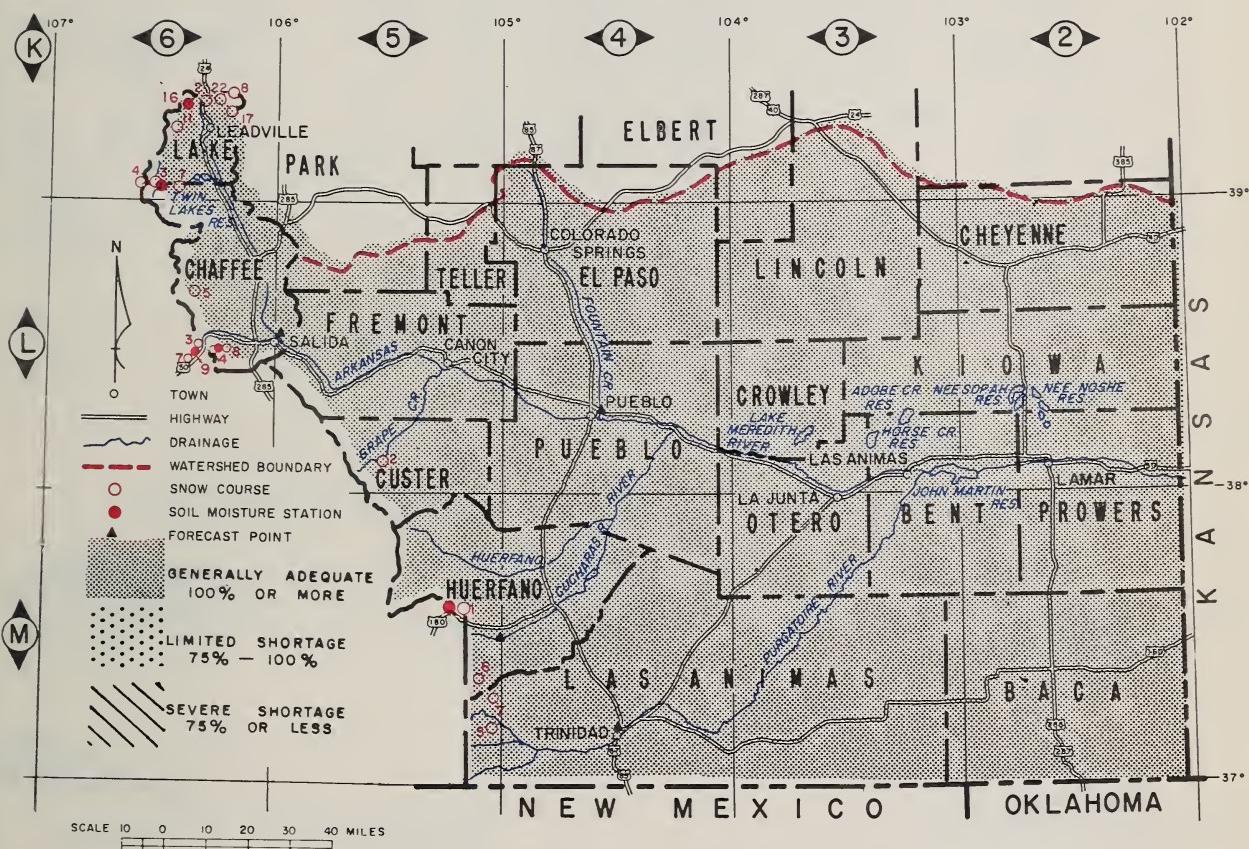
PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

STREAMFLOW FORECAST (1,000 AC. FT.)

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Arkansas at Pueblo (1)	496	145	342
Arkansas at Salida (1)	490	145	339
Cucharas near LaVeta	14	100	14
Purgatoire at Trinidad	48	92	52

(1) Observed flow plus change in storage in Clear Creek, Twin Lakes, and Sugar Loaf Reservoirs minus diversions through Busk-Ivanhoe and Twin Lake Tunnels and Ewing, Fremont Pass, Wurtz and Columbine Ditches.

ARKANSAS RIVER WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
ARKANSAS RIVER						
Blue Lakes	5M6	NS	--	--	--	--
Bigelow Divide	5L3	4/27	5	1.4	--	--
Bourbon	5M5	4/26	6	1.7	4.8	--
Cooper Hill	6K23	4/28	52	15.2	10.4	--
Cucharas Pass	5M7	NS	--	--	--	--
East Fork	6K17	4/26	24	8.0	6.0	8.0*
Four Mile Park	6K7	4/28	1	0.3	0.4	0.7
Fremont Pass	6K8	4/26	62	21.2	16.0	18.6
Garfield	6L8	4/27	26	10.7	14.2	--
LaVeta Pass (B)	5M1	4/30	0	0	5.0	2.8
Monarch Pass	6L4	4/27	51	21.0	20.6	17.7
St. Elmo (A)	6L5	4/30	28	11.2	13.9	11.2*
Tennessee Pass	6K2	4/28	28	9.3	8.7	6.8
Tomichi	6L7	4/27	30	11.3	11.5	--
Twin Lakes Tunnel	6K3	4/30	34	10.8	9.7	9.2
Westcliffe	5L2	4/27	0	0	1.1	4.0*

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

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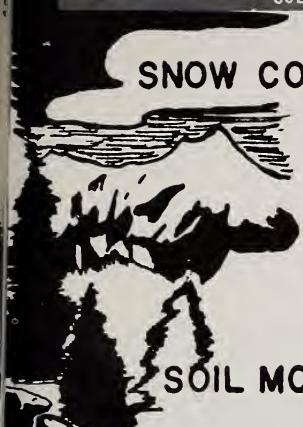
OFFICIAL BUSINESS

**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

UPPER RIO GRANDE WATERSHED IN COLORADO
as of
May 1, 1962

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO

SNOW COVER



High elevation snow courses still indicate snow pack is much above normal, however, most of the low elevation snow is gone or much diminished. Snow fall during April was much below normal.

Snowpack in the Sangre de Cristo mountains is normal or slightly less.

SOIL MOISTURE



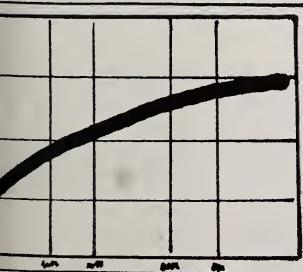
Mountain soils are saturated partially due to melting snow. Soil has had above normal moisture all winter and will add to the summer streamflow. Valley soils are reported as good.

RESERVOIR STORAGE



Reservoir storage is slightly above normal and considerably better than last year at this time.

EXPECTED STREAMFLOW



Streamflow will be normal or above for streams in this basin. Current streamflow is above normal on all streams. High temperatures in this area are responsible. Most of the low snow is melting earlier than normal. Water supplies should be adequate if summer precipitation is normal or better.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

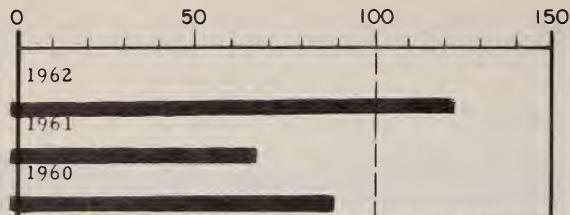
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

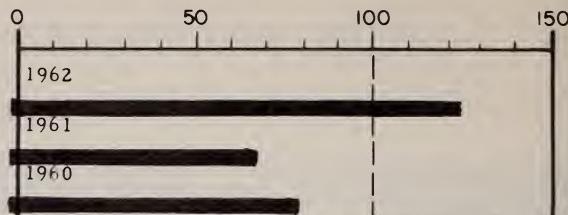
Benny Martin, Area Conservationist,
Monte Vista, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

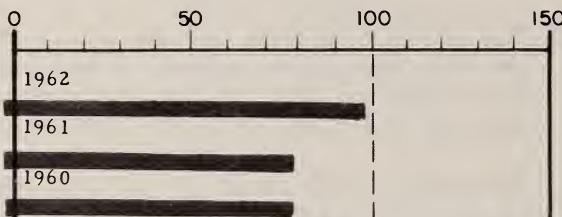
RIO GRANDE



ALAMOSA - CONEJOS



SANGRE DE CRISTO STREAMS



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Continental	26.7	7.2	4.6	8.9
Platoro	60.0	6.5	4.0	5.3
Rio Grande	45.8	24.3	9.2	11.6
Sanchez	103.2	16.6	8.4	11.1
Santa Maria	45.0	8.3	4.3	8.4
Terrace	17.7	13.0	4.6	3.5

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE. DEP.		WINTER AVE. DEP. Dec-Mar	
	Ave.	Dep.	Ave.	Dep.
Rio Grande (Colo.)	8.26	+3.74	2.00	-.24

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alberta Park	9.0	7.0	4.4	5.3
Bristol View	7.0	6.7	6.7	4.0
LaVeta Pass	8.0	7.4	7.6	7.3
Mogote	7.0	6.8	6.5	5.5

ALL PROFILES 4 FEET DEEP

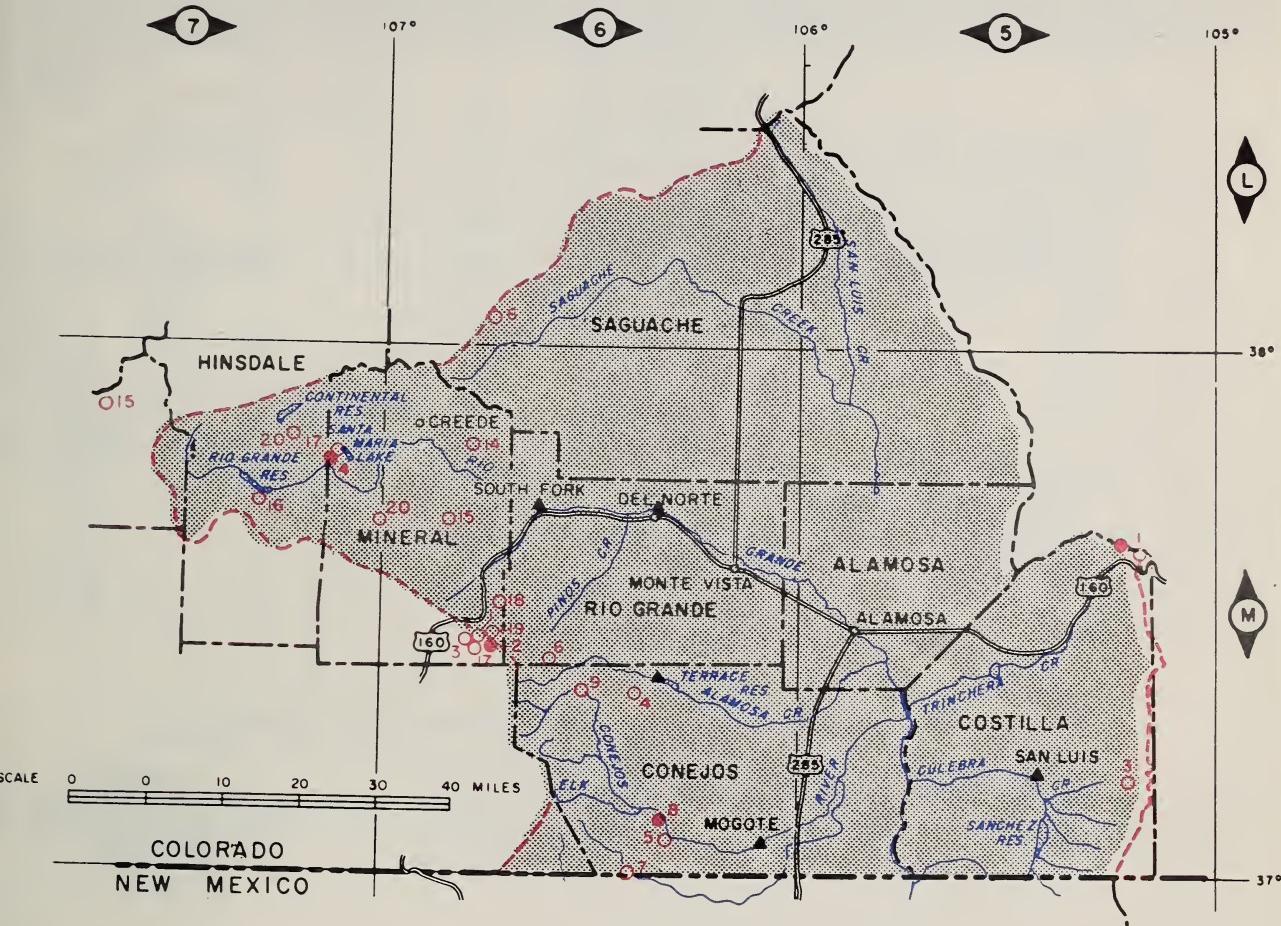
STREAMFLOW FORECAST(1,000 AC. FT.)
APRIL THROUGH SEPTEMBER

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Alamosa above Terrace	95	134	71
Conejos near Mogote	260	132	197
Culebra at San Luis(2)	21	88	24
Rio Gr. nr. Del Norte(1)	700	142	491
Rio Gr. at Thirty Mile Bridge (1)	178	159	112
South Fork at South Fork	162	134	121

(1) Observed flow plus change in storage in Santa Maria, Rio Grande, and Continental Reservoir

(2) Observed flow plus changes in storage in Sanchez Reservoir.

UPPER RIO GRANDE WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	DATE OF SURVEY	CURRENT INFORMATION		PAST RECORD	
			SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
RIO GRANDE IN COLORADO						
Cochetopa Pass	6L6	4/24	10	2.6	6.6	2.8*
Hiway	6M19	4/30	76	31.9	25.1	--
Lake Humphreys	6M15	4/30	0	0	0.7	0.2*
Pass Creek	6M18	4/30	8	2.3	4.4	--
Pool Table	5M14	Est.	0	0	4.1	2.2*
Porcupine	7M20	Est.	40	16.0	5.8	5.9*
Red Mountain Pass (B)	7M15	4/27	81	35.3	32.5	25.6*
Santa Maria	7M17	4/30	0	0	0.3	0.7
Upper Rio Grande	7M16	4/25	5	1.6	2.2	2.3
Wolf Creek Pass	6M1	4/30	63	28.0	21.2	25.4
Wolf Creek Summit (B)	7M17	4/30	88	37.1	27.8	30.5*
ALAMOSA RIVER						
Silver Lakes	6M4	4/30	0	0	0.0	0.6
Summitville	6M6	4/30	73	24.3	20.3	21.9
CONEJOS RIVER						
Cumbres Pass	6M7	4/27	43	21.2	17.3	13.3
Platoro	6M9	4/30	53	23.3	5.9	11.0*
River Springs	6M5	4/30	0	0	1.1	1.0
SANGRE DE CRISTO RANGE (Colo.)						
Blue Lakes (B)	5M6	--	NS	--	--	--
Cucharas Pass (B)	5M7	--	NS	--	--	--
Culebra	5M3	4/29	7	1.6	8.1	6.3
LaVeta Pass	5M1	4/30	0	0	5.0	2.8

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

Jack N. Washichek and Don W. McAndrew
Soil Conservation Service
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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

RIO GRANDE WATERSHED IN NEW MEXICO

as of
May 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER



Only a few snow courses are measured in New Mexico on May 1. Usually most of the snow pack has melted by this time. Snow courses on the Rio Grande in Colorado indicate the snow pack is much above normal. Snow fall in the headwaters area during April was much below normal.

SOIL MOISTURE



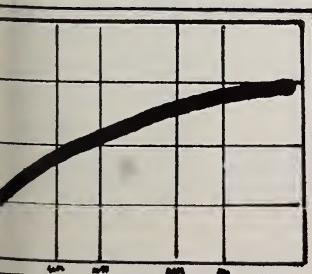
Mountain soils are saturated. Soils have had above normal moisture all winter and this condition will add to the summer streamflow.

RESERVOIR STORAGE



Reservoir storage in New Mexico is near normal and similar to last year. Reservoirs in the headwaters area are slightly above normal at this time.

EXPECTED STREAMFLOW



Streamflow will be normal or above normal for all tributaries in the basin. The main stem of the Rio Grande is forecast at 170% of normal at Otowi. Water supplies should be adequate if this summer's precipitation is normal or better.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

ISSUED BY: SOIL CONSERVATION SERVICE

Courtney A. Tidwell, State Conservationist,
New Mexico

H. M. Cavett, Area Conservationist,
Santa Fe, New Mexico

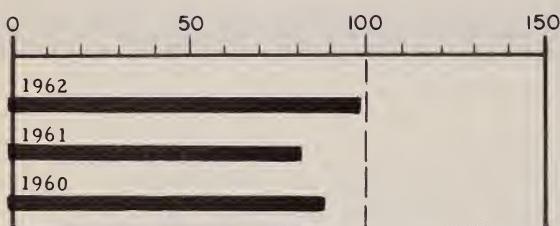
WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

RESERVOIR STORAGE (1,000 AC. FT.)

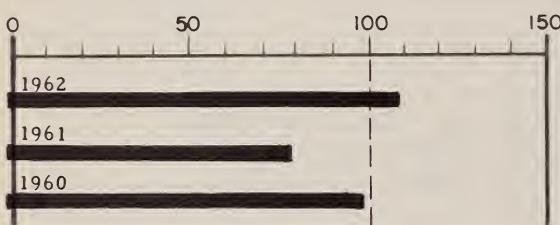
RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Alamogordo	122.1	80.0	122.1	36.0
Caballo	344.0	96.6	78.8	130.3
Elephant Butte	2206.8	368.7	330.3	551.7
El Vado	194.5	72.6	60.0	85.8
McMillan-Avalon	44.5	12.0	21.8	8.3
Red Bluff (Tex)	307.0		2.8	68.5
Conchas	600.0	257.4	279.4	265.2

MEASURED FIRST OF MONTH

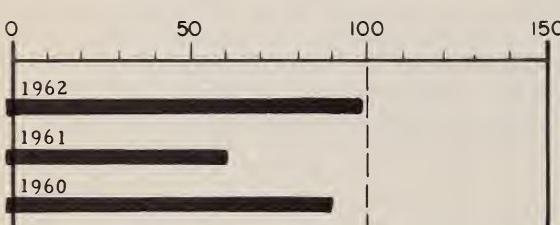
RIO CHAMA



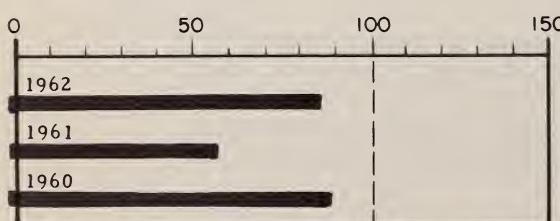
UPPER RIO GRANDE



MIDDLE RIO GRANDE



LOWER RIO GRANDE



PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER		WINTER	
	AVE.	DEP.	AVE.	DEP.
Lower Rio Grande	5.52	+1.84	1.76	+.21
Middle Rio Grande	9.05	+2.72	4.52	+.06
Upper Rio Grande	8.26	+3.74	2.00	-.24

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alberta Park (Colo)	9.0	7.0	4.4	5.3
Aqua Piedra	7.2	4.3	5.0	2.7
Bateman	6.7	3.4	1.7	2.9
Big Tesuque	3.7	2.3	0.9	1.7
Bristol View(Colo)	7.0	6.7	6.7	4.0
Chamita (New Mex.)	8.0	5.4	6.2	5.9
Fenton Hill	6.5	--	6.5	--
Mogote (Colo)	7.0	6.8	6.5	5.5
Red Summit	4.8	0.3	0.7	0.9
Rio En Medio	3.5	1.1	0.2	0.2
Taos Canyon	ALL PROFILES 4 FEET DEEP	3.0	2.1	

STREAMFLOW FORECAST(1,000 AC. FT)

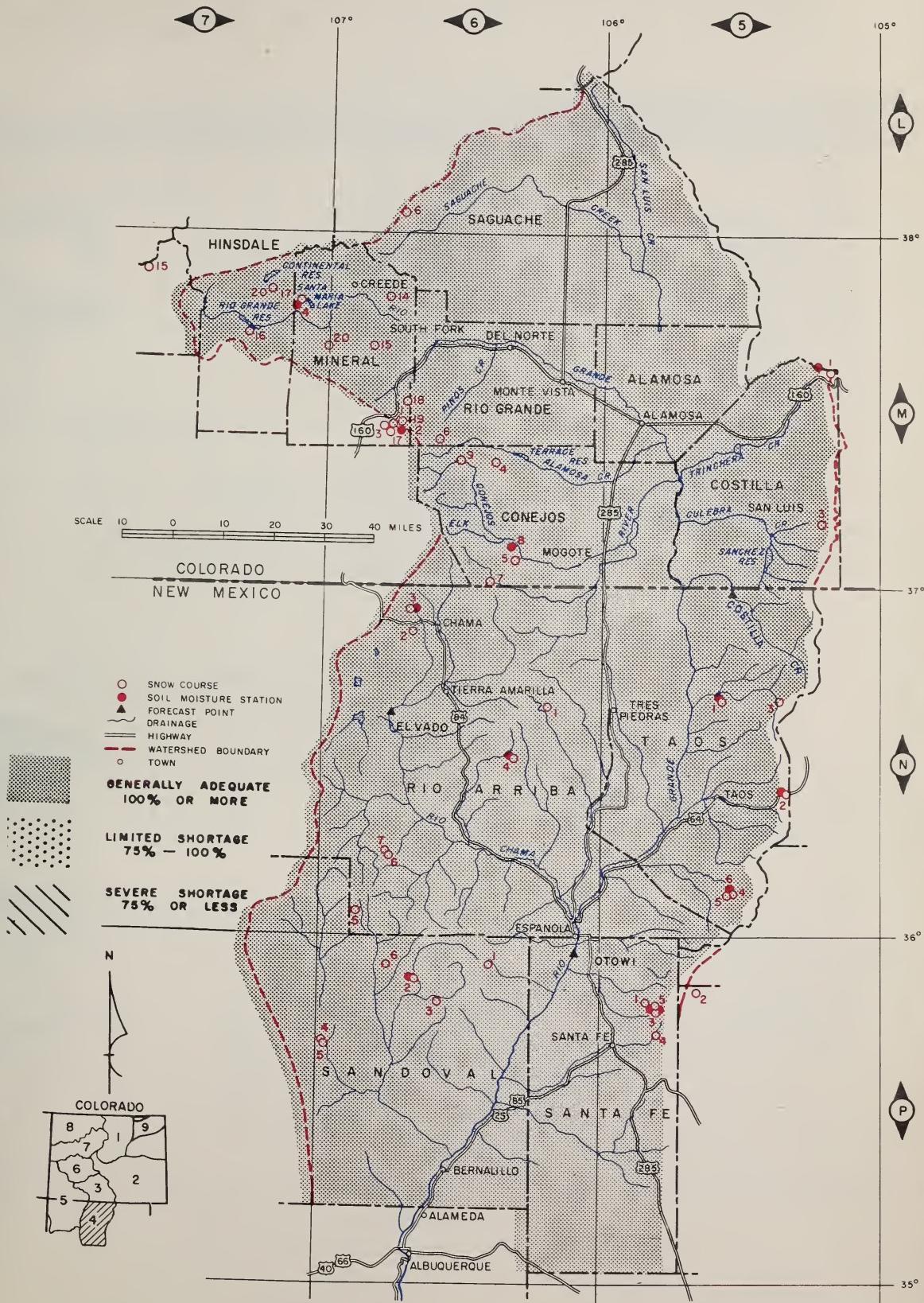
STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Costilla at Costilla	27	100	27
Pecos at Pecos	75	156	48
Rio Chama nr. La Puenta	275	131	210
Rio Grande at Otowi (10)*	1075	170	633
Rio Grande at San Marcial (10)*	820	190	434

Rio Grande at San Marcial is Forecast at 117% of the Elephant Butte Irrigation District's Normal.

(10) Observed flow plus changes in storage in Santa Maria, Rio Grande, Continental, Terrace, Sanchez, Platoro and El Vado Reservoirs.

* Rio Grande at Otowi and Rio Grande at San Marcial Forecast and Average Mar-July inclusive.

RIO GRANDE WATERSHED IN NEW MEXICO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
RIO GRANDE (COLORADO & NEW MEXICO)						
Cochetopa Pass (Colorado)	6L6	4/24	10	2.6	6.6	2.8*
Culebra	5M3	4/29	7	1.6	8.1	6.3
Cumbres Pass	6M7	4/27	45	21.2	17.3	13.3
Hiway	6M19	4/30	76	31.9	25.1	--
Lake Humphreys	6M15	4/30	0	0	0.7	0.2*
LaVeta Pass	5M1	4/30	0	0	5.0	2.8
Pass Creek	6M18	4/30	8	2.5	4.4	--
Platoro	6M9	4/30	53	23.3	5.9	11.0*
Pool Table	6M14	4/30	0	0	4.1	2.2*
Porcupine	7M20	Est.	40	16.0	5.8	5.9*
River Springs	6M5	4/30	0	0	1.1	1.0
Santa Maria	7M17	4/30	0	0	0.3	0.7
Silver Lakes	6M4	4/30	0	0	0.0	0.6
Summitville	6M6	4/30	73	24.3	20.3	21.9
Upper Rio Grande	7M16	4/25	5	1.6	2.2	2.3
Wolf Creek Pass	6M1	4/30	63	28.0	21.2	25.4
Wolf Creek Summit (New Mexico)	6M17	4/30	88	37.1	27.8	30.5*
Chamita	6N3	4/26	1	0.4	0.5	--
Rio En Medio	5P5	4/27	2	0.3	1.0	--

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

**SAN MIGUEL - DOLORES - ANIMAS - SAN JUAN
WATERSHEDS IN COLORADO & NEW MEXICO**

as of
May 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER



As is the case in the rest of the State, snow fall was below normal during the month of April. Most snow courses are still above normal, but low elevation snows are melting rapidly. Snow pack at high elevations is still much above normal.

SOIL MOISTURE

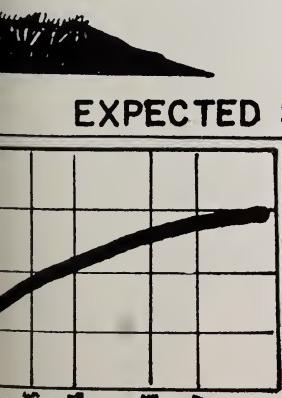


Normally soil moisture is fairly good in this area. This is true again this year. Moisture is just slightly better than average. Valley soils are reported as good.

RESERVOIR STORAGE



Groundhog Reservoir now contains 9,000 acre feet which is just normal. Vallecito has slightly less carry-over storage than last year.



EXPECTED STREAMFLOW

All streams are being forecast above normal, but some were slightly lowered from last month. Most streams are currently flowing above normal due to the high temperatures experienced during April. Water supplies should be adequate this summer. Forecasts are made with the assumption that precipitation will be normal the rest of the year.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

Benny Martin, Area Conservationist,
Monte Vista, Colorado

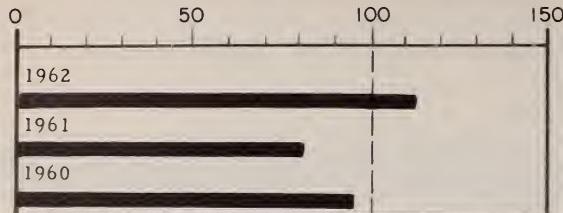
E. A. Nicholson, Area Conservationist *
Grand Junction, Colorado

C. A. Tidwell, State Conservationist,
New Mexico

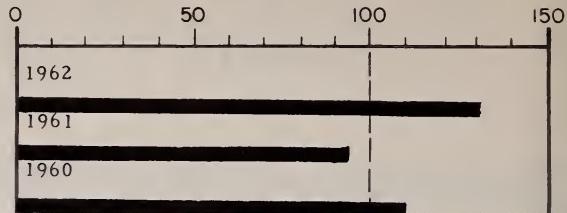
J. B. Christy, Area Conservationist
Albuquerque, N.M.

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

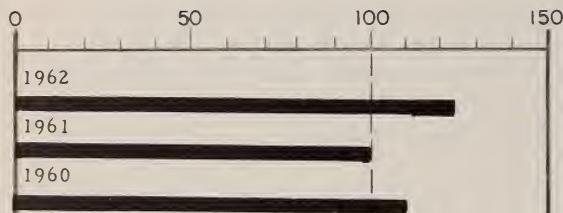
SAN JUAN



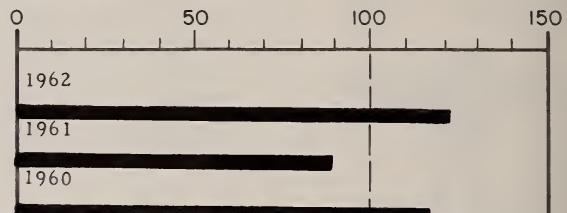
PIEDRA-PINOS-FLORIDA



DOLORES



ANIMAS-LA PLATA



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Groundhog	21.7	9.0	6.0	9.2
Vallecito	126.3	57.0	60.0	64.3

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Cascade	7.0	5.3	NS	5.8
Dolores	7.0	5.7	5.6	4.2
Lizard Head	7.0	5.8	5.9	4.8
Mineral Creek	7.0	4.9	NS	5.7
Molas Lake	7.0	4.8	NS	5.5
Rico	7.0	5.0	5.0	4.4

PRECIPITATION

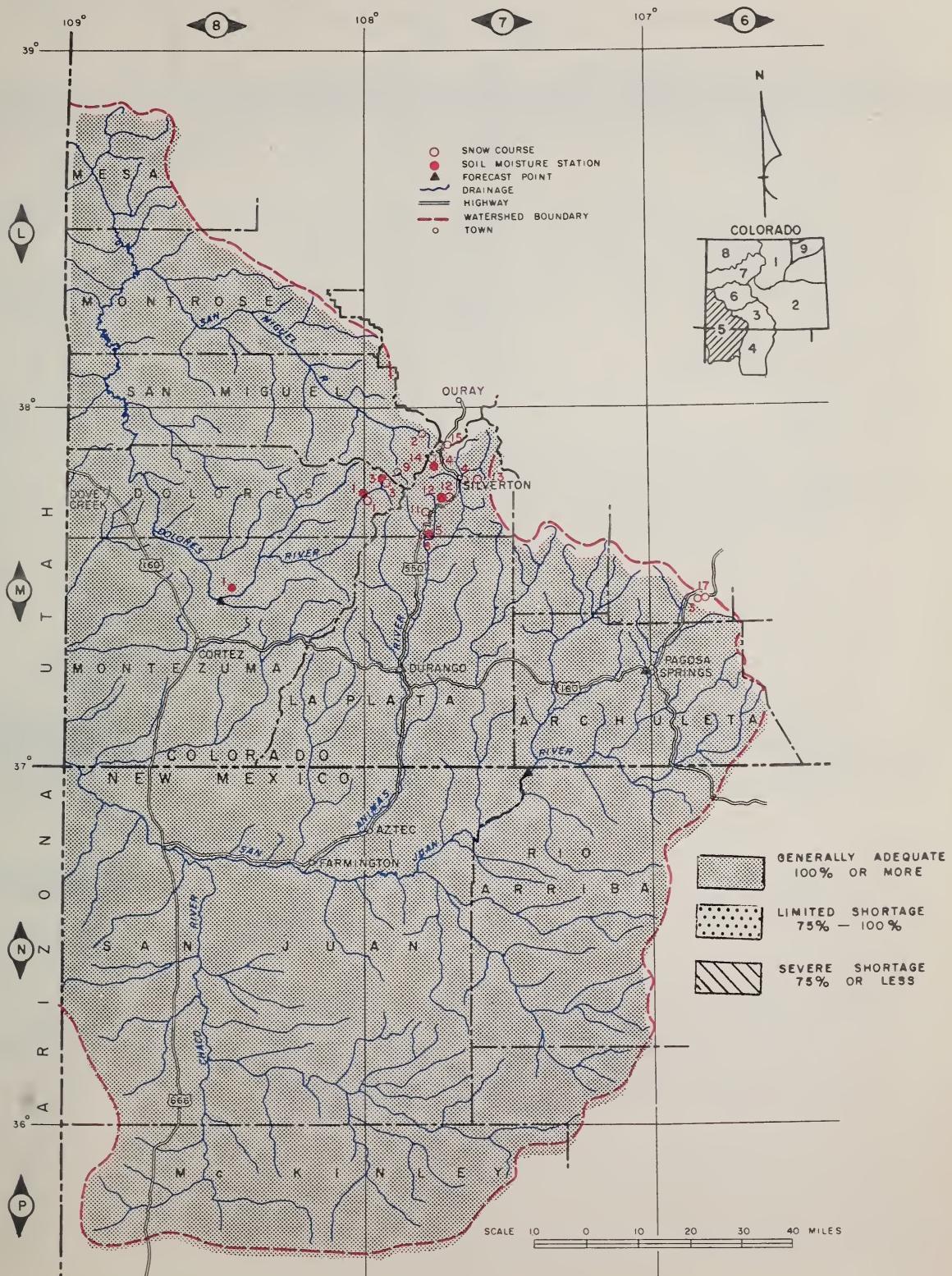
STATION	AUGUST THROUGH NOVEMBER AVE. DEP.		WINTER AVE. DEP. Dec-Mar	
	8.17	+2.19	5.15	-1.54
Dolores	11.76	+4.04	7.02	-1.01
San Juan				

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

STREAMFLOW FORECAST (1,000 AC. FT.)
APRIL THROUGH SEPTEMBER

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Animas at Durango	625	131	475
Dolores at Dolores	350	125	279
Florida near Durango	74	119	62
LaPlata at Hesperus	39	139	28
Los Pinos near Bayfield*	300	136	220
Piedra Creek near Piedra	260	139	186
San Juan at Rosa, N. Mex.	820	140	587

SAN MIGUEL-DOLORES-ANIMAS-SAN JUAN RIVERS WATERSHEDS IN COLORADO & NEW MEXICO



SNOW

SNOW COURSE	NO.	DATE OF SURVEY	CURRENT INFORMATION		PAST RECORD	
			SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	LAST YEAR	AVERAGE 1943 - 57
SAN JUAN RIVER						
Chama Divide (B) (New Mexico)	6N2	4/26	0	0	NS	--
Chamita (B) (New Mexico)	6N3	4/26	1	0.4	0.5	--
Upper San Juan (Colorado)	6M3	4/30	66	35.5	26.9	30.3
Wolf Creek Pass (B)	6M1	4/30	63	28.0	21.2	25.4
Wolf Creek Summit	6M17	4/30	88	37.1	27.8	30.5*
ANIMAS RIVER						
Cascade	7M5	4/27	8	3.0	4.7	2.9
Howardville	7M13	4/27	25	9.8	8.8	5.0*
Ironton Park (B)	7M6	4/27	21	6.8	14.3	7.0
Mineral Creek	7M14	4/27	30	11.3	13.3	9.3*
Molas Lake	7M12	4/27	26	9.7	7.6	6.7*
Red Mountain Pass	6M19	4/27	81	35.3	32.5	25.6*
Silverton Sub-Station	7M4	4/27	0	0	0.9	0.5
Spud Mountain	7M11	4/27	60	26.2	21.5	21.2*
DOLORES RIVER						
Lizard Head	7M3	4/27	39	17.9	15.6	12.9
Rico	7M1	4/27	0	0	0.0	1.3
Telluride	7M2	4/27	0	0	3.0	1.2
Trout Lake	7M9	4/27	27	10.0	11.6	8.6*

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

GUNNISON RIVER WATERSHED IN COLORADO

as of
May 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER



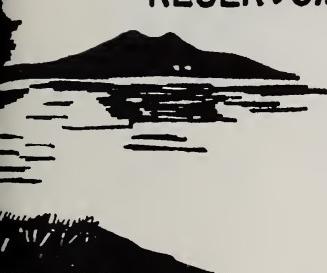
The low elevation snow courses are below normal due to melting and lack of material snow fall during April. Generally all snow is gone below 8,000 feet except on the north slopes. High elevation snow is still above normal.

SOIL MOISTURE



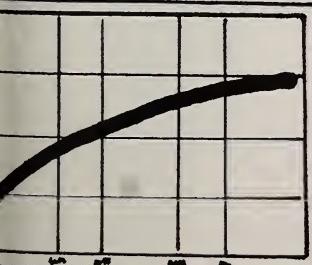
Moisture in the high elevation soil has been above normal all winter. It has been much better than last year. This should increase the streamflow since melting snow does not have to fill the soil mantle prior to runoff.

RESERVOIR STORAGE



Taylor Park reservoir is nearly full and 125% of normal. This will be an excellent supplemental water supply this summer.

EXPECTED STREAMFLOW



Streamflow should be excellent this summer. Current forecast on the main stem is for 140% of the 1943-57 average. These forecasts are based on average rainfall for the remainder of the year. Surface Creek and the Uncompahgre should flow about 130% of normal.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

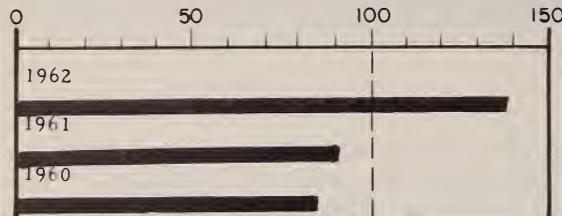
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

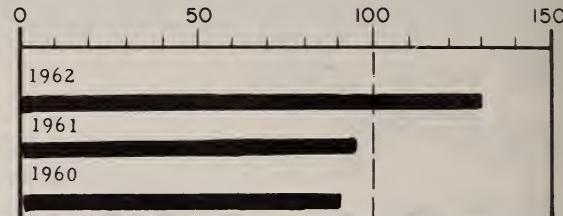
E. A. Nicholson, Area Conservationist,
Grand Junction, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

GUNNISON



UNCOMPAGRE



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Taylor Park	106.2	83.6	38.5	67.0

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE.	DEP.	WINTER AVE Dec-Mar.
Gunnison	8.28	+3.83	5.71 +.57

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

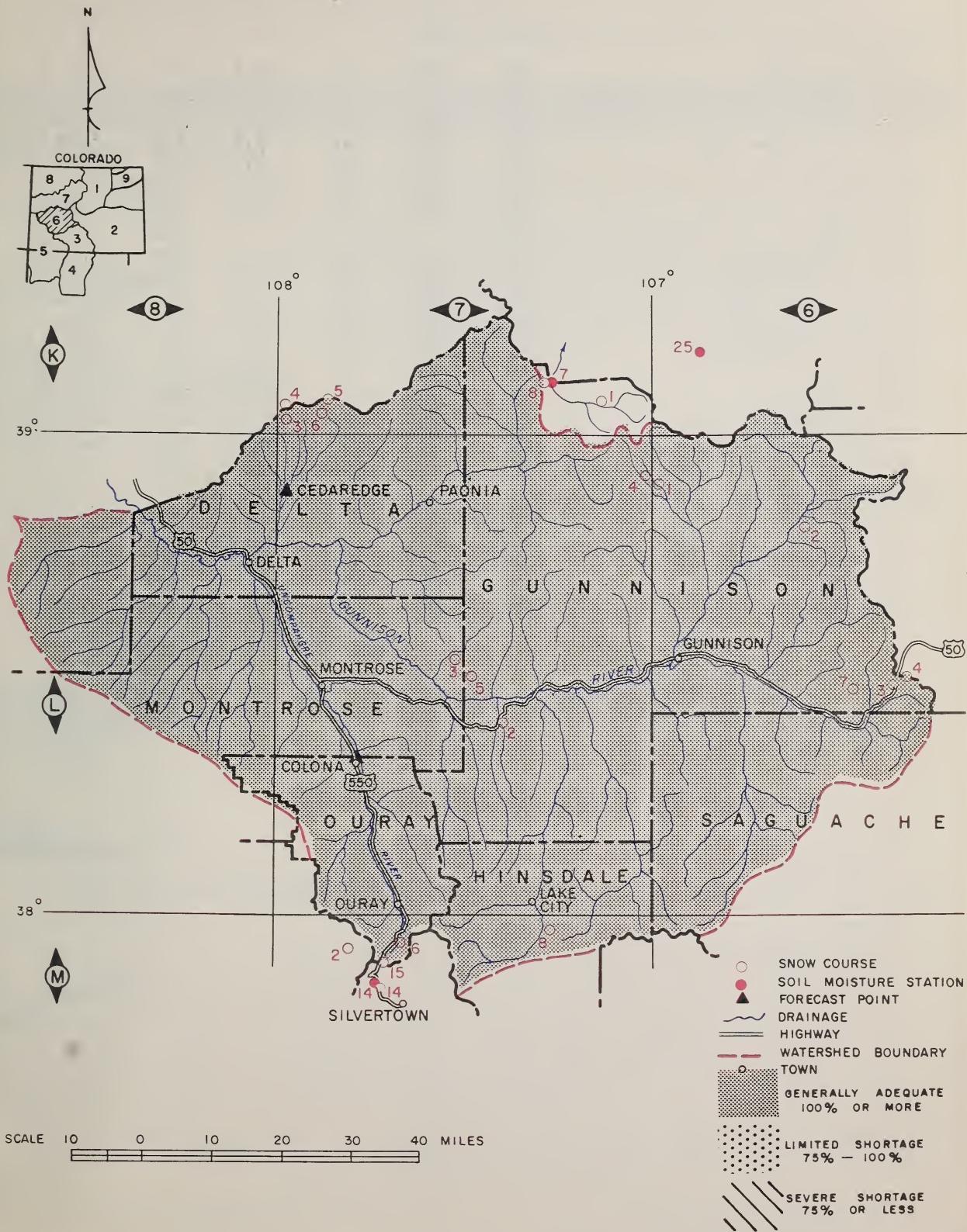
STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
King	8.0	5.4	4.6	5.8
Maroon	8.0	7.8	7.4	7.4
Mineral Creek	7.0	4.9	NS	5.7
Placita	8.0	6.4	6.4	6.8

STREAMFLOW FORECAST (1,000 AC. FT.)

STREAM AND STATION	FORECAST APRIL SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Gunnison nr. Grand Jct.	1950	141	1386
Surface Cr. at Cedaredge	24	133	18
Uncompahgre at Colona	185	128	145

ALL PROFILES 4 FEET DEEP

GUNNISON RIVER WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
GUNNISON RIVER						
Alexander Lake	7K3	4/27	59	26.1	21.9	22.7
Black Mesa	7L5				13.5	--
Blue Mesa	7L2	4/27	4	1.0	3.0	--
Cochetopa Pass (B)	6L6	4/24	10	2.6	6.6	2.8*
Crested Butte	6L1	4/26	20	9.3	10.0	7.9
Keystone	7L3	4/25	52	22.8	14.8	--
Lake City	7M8	4/28	11	2.9	3.8	3.1*
Long Draw	7L4				0.0	--
Mesa Lakes (B)	7K4	4/28	35	15.0	18.9	14.4
Monarch Pass (B)	6L4	4/27	51	21.0	20.6	17.7
McClure Pass	7K8	4/27	28	11.6	9.3	12.2*
Mineral Creek (B)	7M14	4/27	30	11.3	13.3	9.3*
North Lost Trail (B)	7K1	4/27	20	8.6	11.7	8.8
Park Cone	6L2	4/27	31	11.4	7.9	7.4
Park Reservoir	7K6	4/28	63	28.7	25.8	25.5
Porphyry Creek	6L3	4/27	50	19.9	17.9	16.7
Trickle Divide (B)	7K5	4/26	74	32.8	27.7	29.4
Tomichi	6L7	4/27	30	11.3	11.5	--
UNCOMPAGRE RIVER						
Ironton Park	7M6	4/27	21	6.8	14.3	7.0
Lizard Head	7M3	4/27	39	17.9	15.6	12.9
Red Mountain Pass (B)	7M15	4/27	81	35.3	32.5	25.6*
Telluride	7M2	4/27	0	0	3.0	1.2
Trout Lake	7M9	4/27	27	10.0	11.6	8.6*

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

(NS) - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

Jack N. Washichek and Don W. McAndrew
Soil Conservation Service
Colorado State University
Ft. Collins, ColoradoRETURN IF NOT DELIVERED
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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE**

COLORADO RIVER WATERSHED IN COLORADO

as of
May 1, 1962

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO

SNOW COVER



For the second month in a row, snow fall has been below normal. Snow courses throughout the basin indicate very little snow fell during the month. Low elevation snow has just about disappeared. Medium elevation snow pack is near normal while the high snow fields are still above average.

SOIL MOISTURE



Soil moisture has been high all winter and is now being added to by melting snows. This condition should increase the runoff from current snow pack. Valley soil moisture for the entire basin is reported as good.

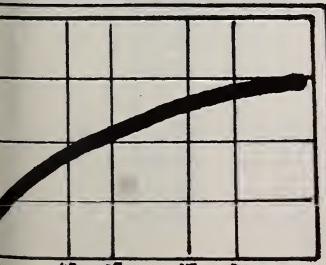
RESERVOIR STORAGE



Carry-over storage on the main stem of the Colorado is good. Granby storage is much above last year and nearly twice normal.

Green Mountain is being drained prior to runoff season. This reservoir should fill this summer.

EXPECTED STREAMFLOW



Forecasts were reduced on the main stem and all tributary streams due to lack of snow. The most drastic reduction was on the main stem above Granby. The inflow to Granby reservoir is now expected to be only about 300,000 or 128% of normal. All streams are forecasted above normal and water supply should be adequate.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist,
Colorado

E. A. Nicholson, Area Conservationist
Grand Junction, Colorado
M. H. Weaver, Area Conservationist,
Glenwood Springs, Colorado

SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES) LAST YEAR	AVERAGE 1943 - 57
COLORADO RIVER (UPPER)						
Arrow	5K6	4/26	25	8.9	10.8	7.8
Berthoud Pass	5K3	4/27	41	15.8	15.5	14.3
Berthoud Summit	5K14	4/30	70	21.1	19.8	20.2*
Blue River	6K21	4/26	19	5.3	5.7	--
Cooper Hill	6K23	4/28	52	15.2	10.4	--
Fiddlers Gulch	6K5	4/30	49	17.0	14.6	15.9
Fremont Pass	6K8	4/26	62	21.2	16.0	18.6
Frisco	6K13	4/26	16	5.7	5.2	5.6*
Glen Mar Ranch	6K20	4/26	8	2.9	7.0	4.8*
Gore Pass	6J11	4/27	21	8.2	8.5	9.5*
Granby	5J16	4/26	9	3.2	3.6	2.9*
Grand Lake	5J19	4/30	15	4.7	5.4	3.8*
Grizzly Peak	5K9	4/25	56	21.3	19.2	20.1
Hoosier Pass (B)	6K1	4/26	41	12.9	12.3	11.9
Jones Pass	5K21	4/25	40	15.7	17.4	--
Lake Irene	5J10	4/30	66	25.6	18.1	24.3
Lapland	5K7	5/1	27	9.0	7.9	9.1
Lulu	5J7	4/28	68	25.4	16.8	19.0
Lynx Pass	6K6	4/27	24	10.0	10.5	7.5
McKenzie Gulch	6K28	4/27	0	0	--	--
Middle Fork Camp Ground	5K4	4/26	13	4.9	9.7	6.0
Milner Pass	5J24	4/30	38	14.2	11.5	10.5*
Monarch Lake	5J14	4/29	20	5.9	6.1	5.4*
North Inlet Grand Lake	5J9	4/30	23	6.3	5.4	7.0
Pando	6K19	4/26	19	6.1	8.9	8.1*
Phantom Valley	5J4	4/30	21	7.5	6.3	6.6
Ranch Creek	5K18	4/26	24	7.0	9.8	--
Shrine Pass	6K9	4/26	62	23.1	19.0	18.7
Snake River	5K16	4/25	2	0.1	3.8	5.6*
Summit Ranch	6K14	4/27	13	3.8	6.7	6.6*
Tennessee Pass	6K2	4/28	28	9.3	8.7	6.8
Vail Pass	6K15	4/26	45	16.5	13.5	16.8*
Vasquez Creek	5K19	4/26	39	14.2	10.7	--
Willow Creek Pass	6J5	4/26	34	14.3	13.2	11.5
ROARING FORK RIVER						
Aspen	7J22	4/23	66	20.9	15.6	--
Independence Pass Tunnel	6K4	4/28	55	19.3	20.7	17.8
Ivanhoe	6K10	4/16	68	24.0	14.4	17.8*
Lift	7K27	4/23	83	26.3	19.1	--
McClure Pass	7K8	4/27	28	11.6	9.3	12.2*
Nast	6K6	4/25	2	0.1	2.1	1.6
North Lost Trail	7K1	4/27	20	8.6	11.7	8.8
PLATEAU CREEK						
Alexander (B)	7K3	4/26	59	26.1	21.9	22.7
Mesa Lakes	7K4	4/28	35	15.0	18.9	14.4
Park Reservoir (B)	7K6	4/28	63	28.7	25.8	25.5
Trickel Divide	7K5	4/28	74	32.8	27.7	29.4

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

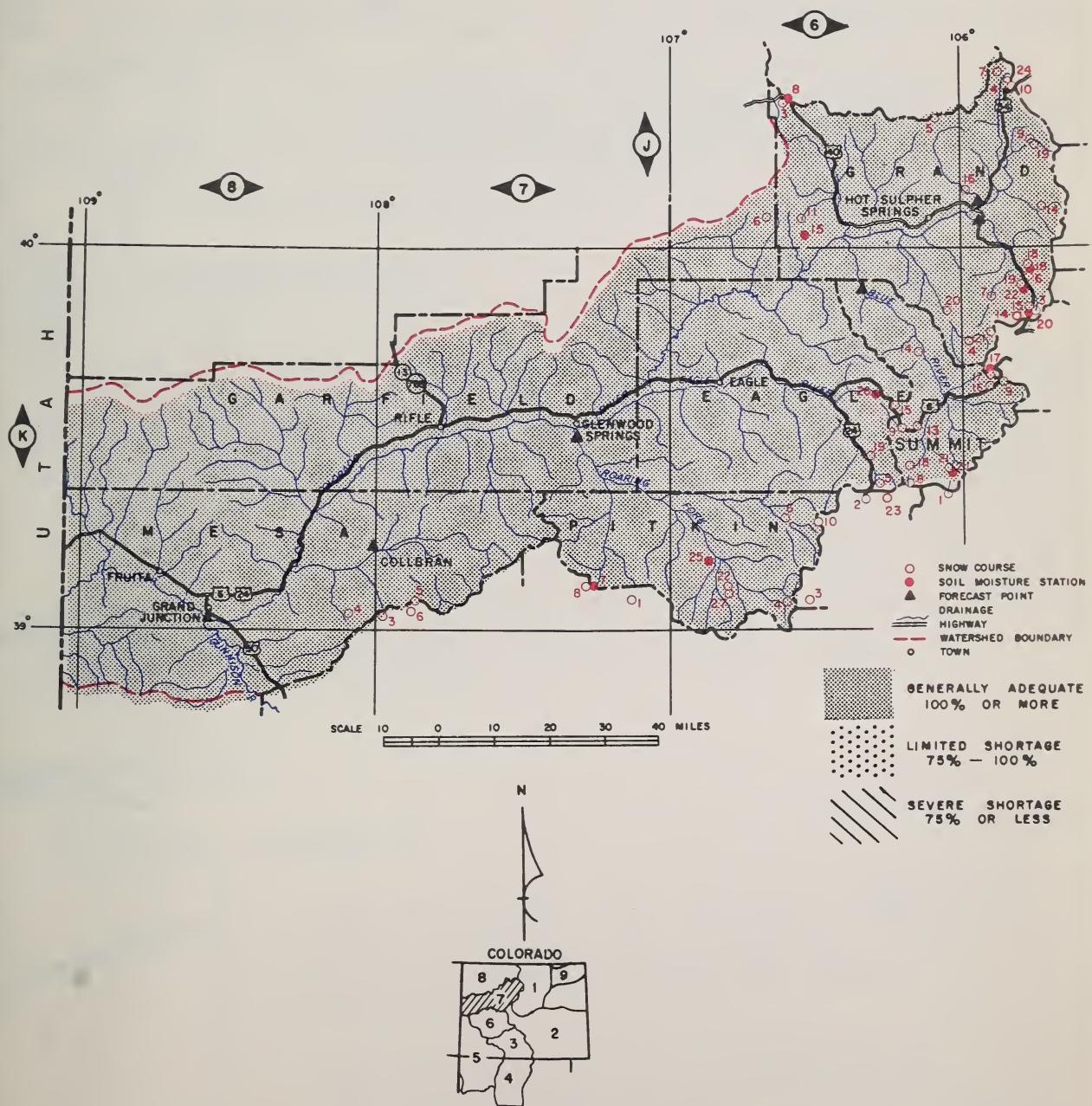
Jack N. Washichek and Don W. McAndrew

Soil Conservation Service

Colorado State University

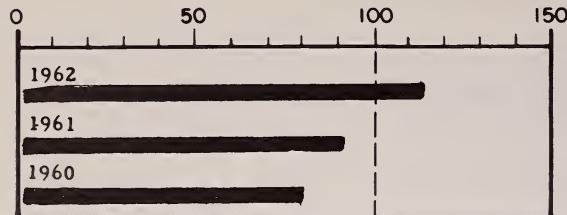
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COLORADO RIVER WATERSHED IN COLORADO

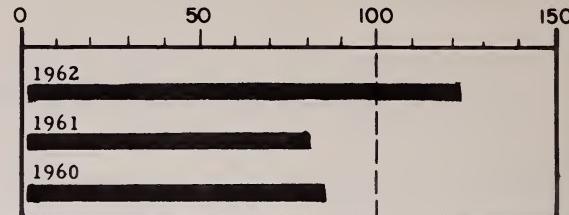


WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

UPPER COLORADO ABOVE GLENWOOD SPRINGS



LOWER COLORADO BELOW GLENWOOD SPRINGS



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Granby *	465.5	330.0	214.0	185.3
Green Mt.	146.9	28.7	54.8	52.3

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Berthoud Pass	8.0	7.6	5.5	4.1
Blue River	7.0	7.0	0.8	2.4
Gore	7.0	6.7	0.7	5.5
Maroon	8.0	7.8	7.4	7.4
Muddy Pass	8.0	8.0	6.6	5.0
Placita	8.0	6.4	6.4	6.8
Ranch Creek	7.0	6.2	3.4	4.3
Vail Pass	8.0	7.6	7.4	6.7
Vasquez	7.0	--	6.4	5.9

ALL PROFILES 4 FEET DEEP

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE.	DEP.	WINTER AVE. Dec-Mar
Upper Colorado	9.86	+4.59	5.88
Lower Colorado	8.26	+3.61	4.28

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

STREAMFLOW FORECAST (1,000 AC. FT.)

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Blue River abv. Green Mt. Dam	300	103	290
Colo. R. nr. Granby (4)	300	128	235
Colo. R. at Glenwood Sprs(5)	1900	123	1546
Plateau Cr. near Collbran	64	112	57
Roaring Fork at Gl. Spgs.(6)	1100	137	803
Williams Fork nr. Parshall	100	128	78
Willow near Granby	58	132	44

(4) Observed flow plus diversions by Adams tunnel and Grand River ditch plus change in storage in Granby Reservoir.

(5) Observed flow plus the changes as indicated in (4) plus Moffat Ditch.

(6) Observed flow plus diversion through Twin Lakes tunnel.

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**WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
YAMPA, WHITE, & NORTH PLATTE
RIVERS WATERSHEDS IN COLORADO**

as of

May 1, 1962

**U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO**

SNOW COVER



As in other areas of the State, low elevation snow cover is almost gone. The remaining is now below normal. Medium to high elevation snow is still above average. High temperatures and dry winds were experienced over most of the basin during the last half of April.

SOIL MOISTURE



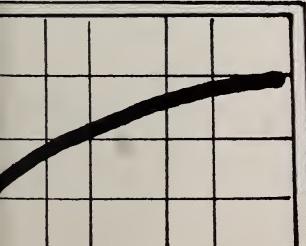
Soil moisture has been above average all year and is now completely saturated. This is due primarily to melting snow seeping into the ground. The good soil moisture condition should increase runoff.

RESERVOIR STORAGE



There are no major reservoirs on these drainages in Colorado, however, the reservoirs on the North Platte in Wyoming contain below normal storage.

EXPECTED STREAMFLOW



All streams in these basins should supply adequate water for irrigation needs. Forecasts are all normal or above. Flows are currently above normal and with continued warm weather will probably remain high.

Forecasts are based on average precipitation for the remainder of the season. Any deviation from normal will affect the forecasts.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

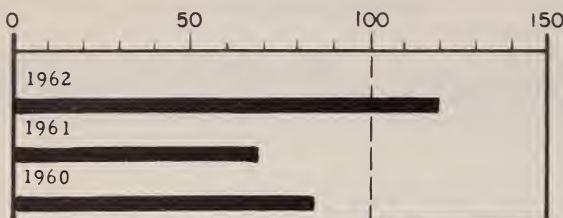
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K. W. Chalmers, State Conservationist,
Colorado

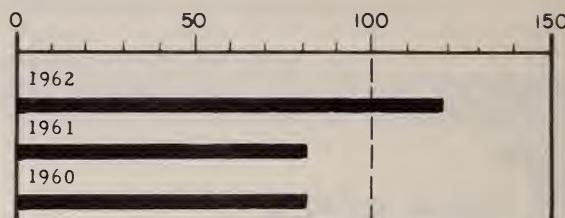
M. H. Weaver, Area Conservationist,
Glenwood Springs, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

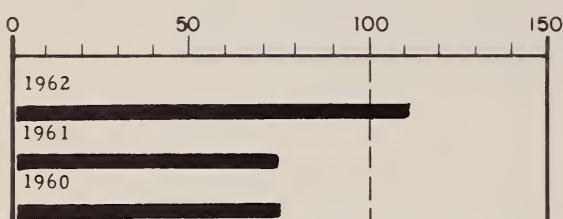
YAMPA



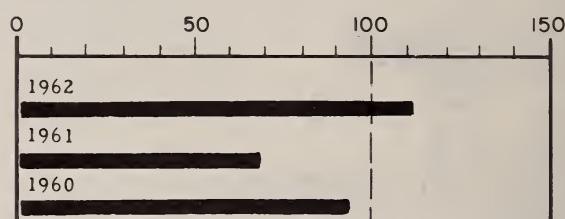
WHITE



LARAMIE



NORTH PLATTE



SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Hahn's Peak	8.0	8.0	7.7	--
Laramie Road	7.0	6.4	0.8	4.0
Muddy Pass	8.0	8.0	6.6	5.0
Two Mile	8.0	6.0	1.2	3.2
Willow Pass	7.0	7.0	1.0	3.8

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT APRIL THROUGH SEPTEMBER)

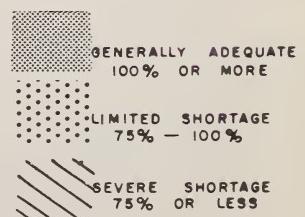
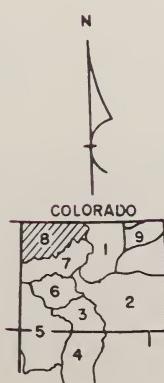
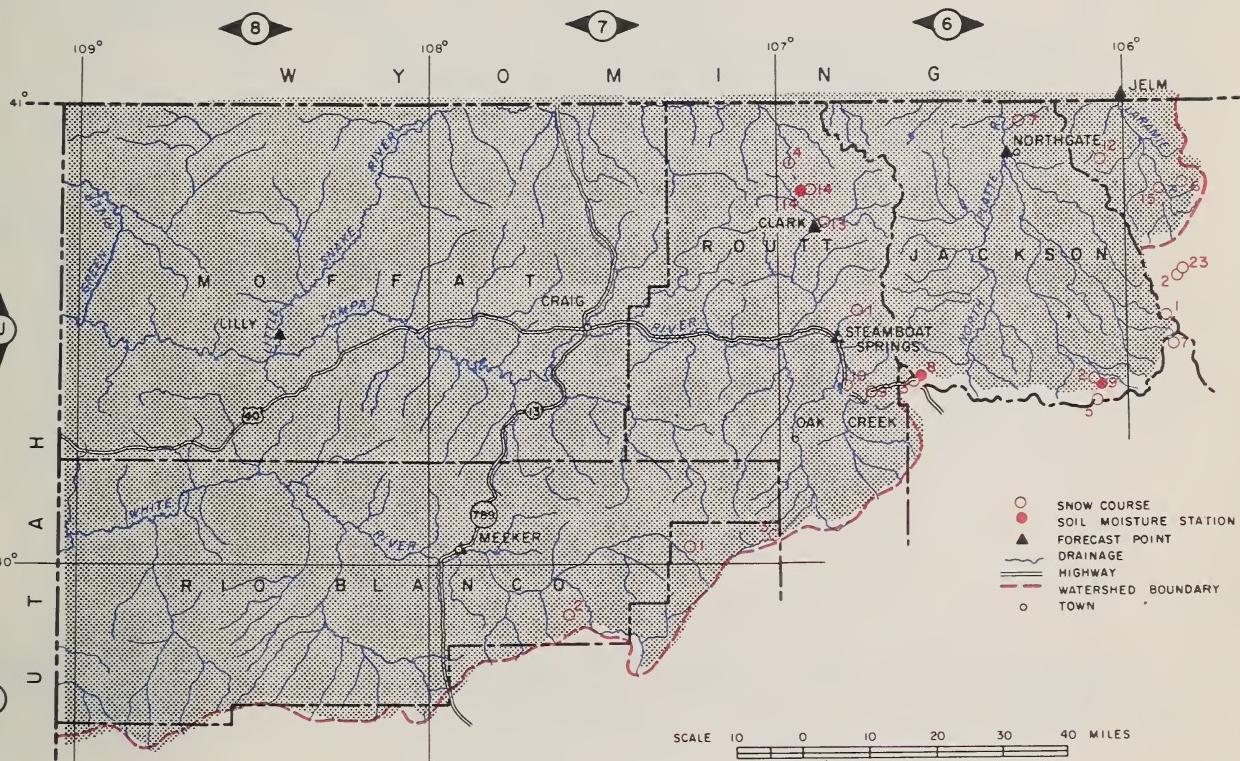
STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Elk at Clark	215	100	215
Laramie at Jelm	152	134	113
Little Snake at Lilly	450	129	350
North Platte at Northgate	435	170	255
White at Meeker	375	119	335
Yampa at Steamboat Sprgs.	340	120	283

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER AVE. DEP.		WINTER AVE. DEP. Dec-Mar	
	AVE.	DEP.	AVE.	DEP.
North Platte	6.08	+3.07	2.16	-.03
White	8.33	+3.81	4.80	+.76
Yampa	9.93	+4.14	8.48	+.87

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

YAMPA, WHITE, & NORTH PLATTE RIVERS WATERSHEDS IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	LAST YEAR
NORTH PLATTE RIVER						
Cameron Pass	5J1	4/26	83	36.5	27.5	25.6
Columbine Lodge	6J3	4/25	49	23.2	20.0	21.3
Deadman Hill (B)	5J6	4/30	52	17.5	17.0	17.7
McIntyre (B)	5J15	4/23	32	8.0	10.1	9.0*
Northgate	6J7	4/27	14	4.0	5.4	2.7*
Park View	6J2	4/26	24	9.1	8.7	6.5
Roach (B)	6J12	4/29	59	24.0	17.4	20.9
Willow Creek Pass (B)	6J5	4/26	34	14.3	13.2	11.5
YAMPA RIVER						
Bear River	7J3	4/25	22	8.4	8.3	--
Clark	6J13	4/26	3	1.2	4.0	--
Columbine Lodge (B)	6J3	4/25	49	23.2	20.0	21.3
Dry Lake	6J1	4/25	36	15.6	15.4	15.2
Elk River	6J4	4/26	33	15.3	14.3	12.8
Hahn's Peak	6J14	4/26	15	6.3	9.0	--
Lynx Pass (B)	6J6	4/27	24	10.0	10.5	7.5
Rabbit Ears	6J9	4/25	59	28.4	25.4	26.1*
Yampa View	6J10	4/28	18	7.6	9.9	8.3*
WHITE RIVER						
Burro Mountain	7K2	4/26	35	14.5	15.5	14.6
Rio Blanco	7J1	4/27	24	10.3	12.6	10.2

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

(NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by
 Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

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WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE

LOWER SOUTH PLATTE RIVER WATERSHED IN COLORADO
as of

May 1, 1962

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



SNOW COVER

Snow cover at the low elevations has just about disappeared. We have had practically no snow during April and have had considerable melt. Warm weather the latter part of April ate up the snow. High elevation courses are still above normal. Cameron Pass has more snow than at any time since 1956.



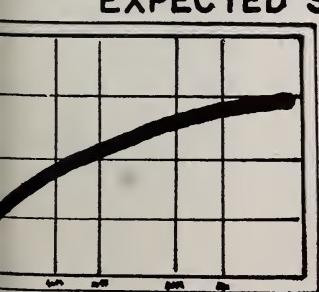
SOIL MOISTURE

Valley soil moisture conditions are not as good as a month ago. No material snow fall or rain has been recorded and dry winds have sapped soils of their water. Mountain soils are soaked.



RESERVOIR STORAGE

Carry-over storage is nearly normal for reservoirs in the Lower South Platte, but reservoirs closer to the mountains are much above normal. Storage in reservoirs of the Big Thompson Project is much above normal.



EXPECTED STREAMFLOW

Forecasts are rapidly approaching normal. What looked like a big water season during February and March now looks just a little better than normal. With average precipitation, water supplies should still be adequate. Forecasts are based on average rainfall for the remainder of the year. All forecasts are still above normal. Current streamflow is much above average for this date.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

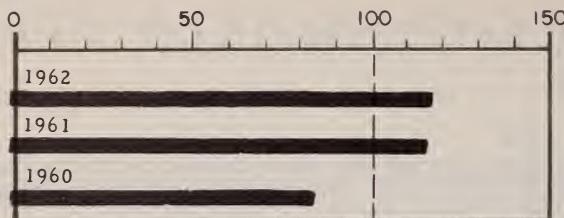
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K. W. Chalmers, State Conservationist
Colorado

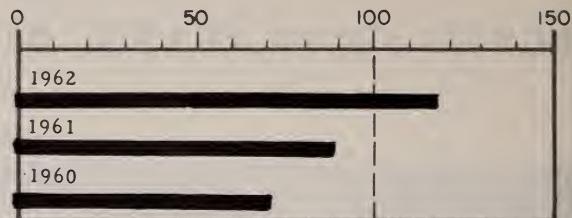
Wallace L. Bruce, Area Conservationist
Sterling, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

UPPER SOUTH PLATTE



LOWER SOUTH PLATTE



RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1943 - 57
Carter *	108.9	107.3	94.4	69.2
Cheeseman	79.0	79.1	63.9	52.7
Eleven Mile	81.9	98.0	98.0	69.4
Empire	37.7	33.6	36.3	29.5
Horsetooth *	143.5	137.4	119.4	94.0
Jackson Lake	35.4	33.9	34.4	34.3
Julesburg	28.2	19.8	22.7	22.1
Point of Rocks	70.0	64.8	71.2	61.7
Prewitt	32.8	27.4	30.0	21.5
Riverside	57.5	57.5	61.2	50.4

MEASURED FIRST OF MONTH

PRECIPITATION

STATION	AUGUST THROUGH NOVEMBER		WINTER	
	AVE.	DEP.	AVE.	DEP.
Upper So. Pl.	8.07	+3.71	2.40	-.22
Lower So. Pl.	7.15	+2.52	1.08	-.68

PRELIMINARY U.S. WEATHER BUREAU DATA
AVERAGE OF SELECTED STATIONS

SOIL MOISTURE

STATION	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alpine Camp	7.0	4.0	1.4	2.8
Beaver Dam	6.0	5.4	0.5	2.3
Feather	6.0	5.6	5.7	3.9
Guard Station	7.0	4.2	1.0	3.9
Hoop Creek	6.0	4.5	1.1	1.9
Hoosier Pass	7.0	7.0	1.2	2.5
Kenosha Pass	7.0	6.3	0.9	4.3
Laramie Road	7.0	6.4	0.8	4.0
Two Mile	8.0	6.0	1.2	3.2
Clear Creek	8.0	5.6	0.8	2.1

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT.)

APRIL THROUGH SEPTEMBER

STREAM AND STATION	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1943-57
Big Thompson at Drake (2)	130	123	106
Boulder at Orodell	63	115	55
Cache La Poudre at Canon(1)	190	101	189
Clear Creek at Golden (3)	172	125	137
Saint Vrain at Lyons	85	101	84

WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE

LOWER SOUTH PLATTE RIVER WATERSHED IN COLORADO

as of

May 1, 1962

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO

SNOW COVER



Snow cover at the low elevations has just about disappeared. We have had practically no snow during April and have had considerable melt. Warm weather the latter part of April ate up the snow. High elevation courses are still above normal. Cameron Pass has more snow than at any time since 1956.

SOIL MOISTURE



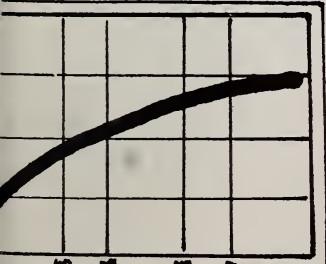
Valley soil moisture conditions are not as good as a month ago. No material snow fall or rain has been recorded and dry winds have sapped soils of their water. Mountain soils are soaked.

RESERVOIR STORAGE



Carry-over storage is nearly normal for reservoirs in the Lower South Platte, but reservoirs closer to the mountains are much above normal. Storage in reservoirs of the Big Thompson Project is much above normal.

EXPECTED STREAMFLOW



Forecasts are rapidly approaching normal. What looked like a big water season during February and March now looks just a little better than normal. With average precipitation, water supplies should still be adequate. Forecasts are based on average rainfall for the remainder of the year. All forecasts are still above normal. Current streamflow is much above average for this date.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

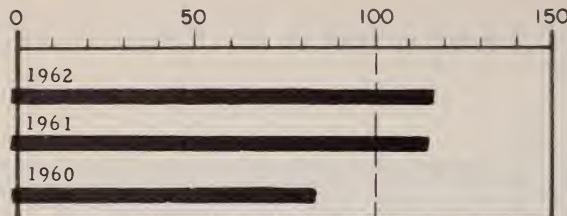
ISSUED BY: SOIL CONSERVATION SERVICE

K. W. Chalmers, State Conservationist
Colorado

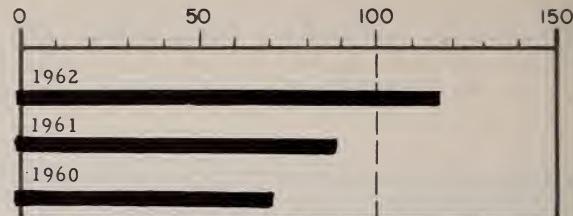
Wallace L. Bruce, Area Conservationist
Sterling, Colorado

WATER SUPPLY OUTLOOK IN PERCENT OF 1943-57 AVERAGE

UPPER SOUTH PLATTE



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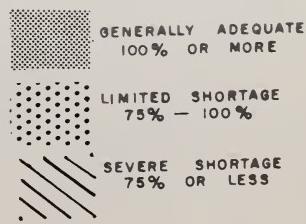
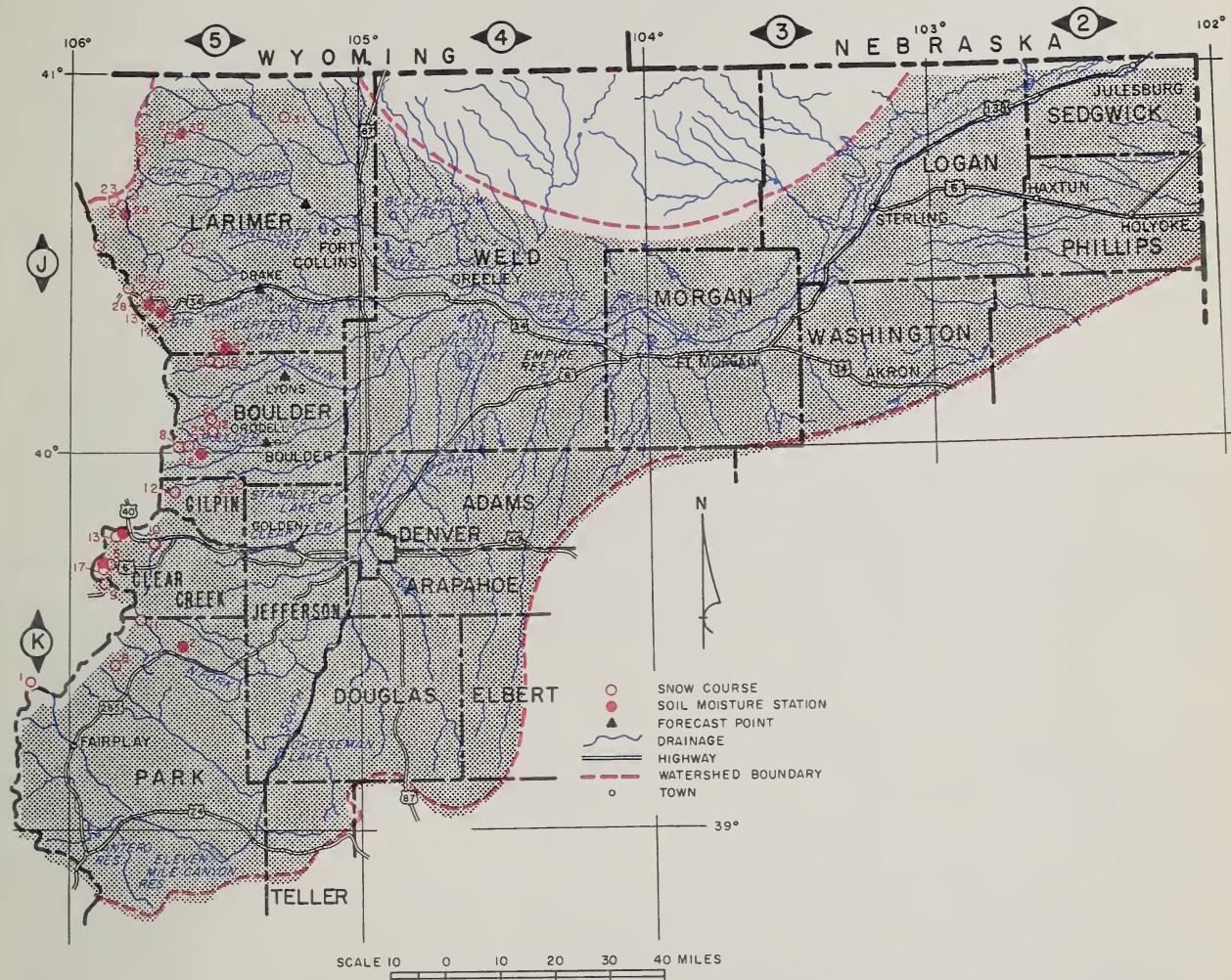
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LOWER SOUTH PLATTE RIVER WATERSHED IN COLORADO



SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES) LAST YEAR	AVERAGE 1943 - 57
SOUTH PLATTE RIVER AND TRIBUTARIES						
Baltimore	5K23	4/30	9	2.4	5.2	--
Berthoud Falls	5K13	4/30	36	11.5	13.1	13.2*
Big South	5J3	4/29	0	0	1.2	0.9
Boulder Falls	5J25	4/27	32	11.6	14.5	12.5*
Cameron Pass	5J1	4/26	83	36.5	27.5	25.6
Chambers Lake	5J2	4/29	7	2.3	8.0	4.9
Copeland Lake	5J18	4/29	2	0.2	3.0	2.3*
Deadman Hill	5J6	4/30	52	17.5	17.0	17.7
Deer Ridge	5J17	4/29	11	2.5	4.2	3.6*
Empire	5K10	4/30	22	6.1	6.3	6.5*
Geneva Park	5K11	4/30	0	0	0.5	2.1*
Grizzly Peak (B)	5K9	4/25	56	21.3	19.2	20.1
Hidden Valley	5J13	4/29	45	14.6	11.9	13.4
Hoosier Pass	6K1	4/26	41	12.9	12.3	11.9
Hour Glass Lake	5J11	4/26	13	4.0	7.3	7.8
Jefferson Creek	5K8	4/26	28	8.2	7.7	8.0
Lake Irene (B)	5J10	4/30	66	25.6	18.1	24.3
Long's Peak	5J22	4/28	31	7.8	13.4	13.9*
Lost Lake	5J23	4/29	30	9.1	10.9	8.4*
Loveland Pass	5K5	4/25	38	15.5	18.3	14.7
Loveland Lift No. 1	5K24	4/25	78	28.2	27.1	—
Pine Creek	5J31	4/30	0	0	0	--
Red Feather	5J20	4/30	8	1.7	8.6	3.9
Two Mile	5J26	4/29	65	22.9	16.6	17.2*
University Camp	5J8	4/27	48	16.3	20.0	25.1
Ward	5J21	4/27	7	2.0	9.1	6.1*
Wild Basin	5J5	4/29	27	8.2	12.0	15.2

NOTE: * - 1943 - 57 (ADJUSTED AVERAGES)

(NS) - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by

Jack N. Washichek and Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Ft. Collins, Colorado

RETURN IF NOT DELIVERED

UNITED STATES
 DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Snow Survey
 Colorado State University
 Ft. Collins, Colorado

POSTAGE AND FEES PAID
 U.S. DEPARTMENT OF AGRICULTURE

OFFICIAL BUSINESS

LIST OF COOPERATORS

The following organizations cooperate in snow surveys for the Colorado, Platte, Arkansas and Rio Grande watersheds. Many other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

STATE

Colorado State Engineer
New Mexico State Engineer
Nebraska State Engineer
Colorado Experiment Station
Rocky Mountain Forest and Range Experiment Station

FEDERAL

Department of Agriculture

Forest Service
Soil Conservation Service

Department of Interior

Bureau of Reclamation
Geological Survey
National Park Service
Indian Service

Department of Commerce

Weather Bureau

War Department

Army Engineer Corps

Atomic Energy Commission

PUBLIC UTILITIES

Colorado Public Service Company
Western Colorado Power Company
Public Service Company of New Mexico

MUNICIPALITIES

City of Denver
City of Boulder

WATER USERS ORGANIZATIONS

Arkansas Valley Ditch Association
Colorado River Water Conservation District

IRRIGATION PROJECTS

Farmers Reservoir and Irrigation Company
San Luis Valley Irrigation District
Santa Maria Reservoir Company
Costilla Land Company
Uncompahgre Valley Water Users' Association
Twin Lakes Reservoir and Canal Company

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
240 SOUTH HALL
COLORADO STATE UNIVERSITY
FORT COLLINS, COLORADO

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FIRST CLASS MAIL

FEDERAL - STATE - PRIVATE
COOPERATIVE SNOW SURVEYS

Furnishes the basic data
necessary for forecasting
water supply for irrigation,
domestic and municipal water
supply, hydro-electric power
generation, navigation,
mining and industry

*"The Conservation of Water begins
with the Snow Survey"*

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